

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL  
RAILROAD AND FINANCIAL NEWSPAPER.

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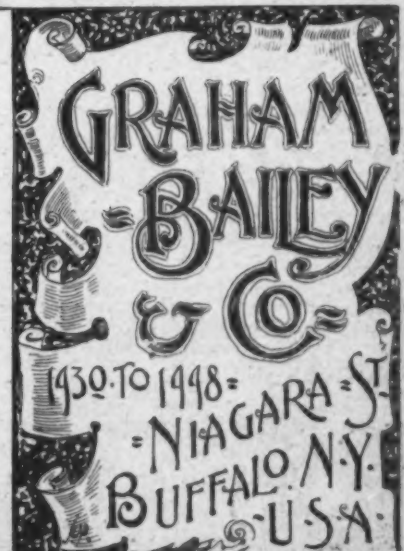
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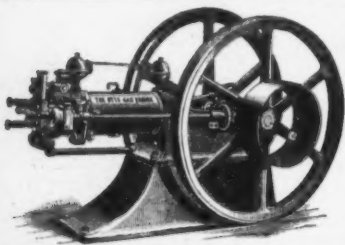
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# MANUFACTURERS' RECORD

A Southern Industrial, Railroad and Financial Newspaper.

VOL. XVIII. NO. 17.  
WEEKLY.

BALTIMORE, NOVEMBER 29, 1890.

\$4.00 A YEAR.  
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## Manufacturers' Record.

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WM. H. EDMONDS, BUSINESS MANAGER.

THOMAS F. GRANTY, Southern Staff Correspondent.

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BALTIMORE, NOVEMBER 29, 1890.

THE Atlanta Constitution, referring to a recent editorial in this paper concerning the Columbian Exposition, thinks it will be time enough for State legislatures to make appropriations for exhibits at Chicago when the members of the national commission and the local directory have stopped wrangling and have settled down to business. Our esteemed contemporary is mistaken. One by one these questions of difference will be adjusted, and eventually there will be harmony. That Chicago has shown in many respects anything but proper spirit since Congress conferred the honor of having the exposition within her borders is not to be denied, but the powers of the local directory are far inferior to those conferred by the charter upon the national commission, and the members of the latter, many of them very able men, have proved already that they are quite capable of maintaining their rights and of compelling compliance with what in their judgment is necessary to make the exposition a success. It is, therefore, unwise to anticipate "another year of wrangling" and to postpone preparations. Moreover, the legislatures in session this winter will not meet a year hence, and, if they did, they would give the people of their States but little time to make the preparations an occasion of such magnitude demands. It is to be hoped that the Constitution will take the true view of the situation and exert its potent influence in favor of early and liberal action by the Georgia legislature.

### Transfer of Financial Ascendancy from Europe to America.

An article from the pen of Col. George B. Cowlam, published in another column, is the clearest and strongest review of the recent financial upheaval we have yet seen. It is a very valuable contribution on a subject which is uppermost in all the nations on both sides of the Atlantic.

The MANUFACTURERS' RECORD can add but little to Col. Cowlam's analysis of the situation, save that the logical deduction from all the facts is that the shake-up in London will transfer the financial ascendancy of the world from Europe to America. This is the one tremendously important result which looms up from storm-swept London moneydom.

With the collapse of the Barings and the consequent losses to their enormous clientele, London virtually surrendered to the United States leadership in the finances of the world, for which leadership this country immediately proved its ability and fitness. Heretofore London has been the rich man who had money when everybody else was hard up. This time New York had the money, and bought back in six months for \$200,000,000 the securities sold to London at a much higher figure, and which will eventually go to London again at prices dictated by New York.

The recklessness of British financiering and the rottenness of South American speculations which have absorbed so many hundreds of millions of British money, afford a sharp contrast for the strength of financial institutions and the solvency and prosperity of our country. Never before has this country been put in such a strong light before the world, and the results will be beyond calculation. The investing public of Great Britain can no longer be controlled by houses which have led them at will, and an era of independent investment in this country which will eclipse anything ever before known is inevitable. For all this investment the money will be handled

largely from our own financial centers.

Corroborative of our own view of the effect of the London panic is the opinion expressed by a New York bank president in a letter to a Southern colleague. "The enterprises of which you write me," says he, "I think will be much more likely to get a fair hearing and probable accommodation this winter than they would have been apt to receive at any time during the past two years. As I view it, and this is the opinion of most of my fellows in the Clearing House Association, we are upon the edge of a great financial boom."

In a spirit worthy of all commendation the New Orleans Picayune refers to the growing commerce between Mobile and the islands of Jamaica and Cuba, which is carried on by steamers of the Plant Line. Of this it says:

This is a consummation which is for the benefit of the entire South. A narrow view of the matter would seem only to show that steamers which might as profitably be sent from New Orleans are being dispatched from another Gulf port. It probably would not be true that Alabama coal could be shipped as cheaply from New Orleans as from Mobile, but whether true or not, makes no difference in the real bearings of the case. The most important fact is that Southern ports are increasing their direct trade with foreign nations.

The grand object is to make this trade grow. This can only be done by increasing the facilities. More ports will make competition, and competition insures an improvement of all commercial advantages. But there will be no need of ports unless they are able to draw trade from the interior, and the fact that they are able to draw and to compete for such trade proves that the country contiguous to and in reach of such ports is filling up with population and business.

The wisdom of these comments is unquestionable. The more rapidly the interior is developed the greater will be the carrying trade between it and the seaports, and the greater the demand for the products of the West Indies and Central America, and a generous rivalry between the coast cities will increase the volume of business done by all.

### "The Gateway of the South."

A correspondent of the MANUFACTURERS' RECORD points out in a letter published to-day the advantages as a town-site of Shenandoah Junction, the crossing point of the Baltimore & Ohio and the Shenandoah Valley Branch of the Norfolk & Western Railroad. It is very aptly called "The Gateway of the South," and is by many regarded as the best point in the upper end of the valley for building a big industrial town such as has been built up at Roanoke, the southern end of the Shenandoah Valley Railway.

In a military sense Harper's Ferry, where the Potomac and Shenandoah rivers join forces and cut through the mountains on their way to the sea, is the gate to the Valley of Virginia. But in a commercial sense it is nowhere, because Bolivar Heights, the point between the two rivers, is a high hill, and a little strip barely sufficient for railways, and a street along the Potomac on one side and the Shenandoah on the other is all the level land, the town being driven up to roost on the steep slopes of the mountain point known as Bolivar Heights. But back between the two rivers where the valley widens out, and where the great double-track main line of the Baltimore & Ohio Railroad is crossed by the Shenandoah Valley Railroad, is as fair a site for a town as can be found anywhere in the Cumberland valley or its southern continuation, the world-famous Shenandoah, and nature and the railways seem to have combined to make it the future gateway of the valley.

The Norfolk & Western having secured the Shenandoah Valley line at the recent sale, and being noted for a policy which first of all looks to the building up of flourishing towns along its lines, will doubtless take an active part in helping to build up a big town at this point.

The Baltimore & Ohio Railroad Co. has lately changed its policy of sacrificing everything for through business, and is now anxious to devote special attention to developing

local traffic by building up the towns along its line. With the organization of a company to push a town enterprise at the Junction, the managers of this road would have the best opportunity ever offered to them of demonstrating what they can do in this line. We understand that they have already given some consideration to this matter, and it is said that they will take great interest in helping to develop a large industrial center at this point. It is the only place, we believe, in the South at the junction of two such great railroad systems as the Baltimore & Ohio and the Norfolk & Western, not occupied by a large town. With its natural advantages and these two railroads to help push it, it ought to be possible at Shenandoah Junction to more than duplicate Roanoke's wonderful growth. One year ago the MANUFACTURERS' RECORD editorially pointed out the very striking advantages for a town-site possessed by what was then known as Waynesboro Junction. The result is that at that point Basic City, one of the most thriving towns of the South, now stands with an eight or ten months' record of progress of which its managers may well be proud. From a wheat field of 12 months ago, Basic City has grown to be a place of several thousand people, and the investors in it have reaped very large profits. The MANUFACTURERS' RECORD now takes pleasure in pointing out another junction where a still more rapid development ought to take place.

A PRESS dispatch from Charleston, S. C., states that representatives of English capitalists are negotiating for the purchase of all the phosphate lands of that section and of their connected works. It is intimated also that the legislature may, at the behest of the Farmer's Alliance, sell the entire interest of the State in the river phosphate deposits, from which about \$200,000 in the form of royalties are paid annually into the State's treasury. The motive that leads many to favor this sale is to realize money enough to pay off the bonded debt of the State, which will mature in 1893, and thus relieve the farmers from the taxes levied for interest and the sinking fund. Paying interest on a debt is an unpleasant duty to most people, but it is questionable whether the farmers of South Carolina will derive any relief from their burdens by permitting a monopoly to acquire possession of all their phosphate properties, for not only in that State, but in all where upland cotton is a chief staple, the very reasonable prices at which acid phosphate has been procurable of late years has had much to do with their increased crops. A slight advance per ton on the price of this fertilizer would soon amount to a heavier tax than their proportion of the debt, interest and principal.

#### This Farce Must End.

There are in Florida some 30 branches of the so-called Southern Interstate Immigration Bureau. The Florida Times-Union, referring to the immigration convention called to meet at Asheville next month, says that "singularly enough," none of these branches were included in the call. It also intimates pretty plainly that they have not been "a howling success" as promoters of immigration and the investment of capital in Florida. "At all events," says the Times-Union, "if they have achieved any degree of success, if they can show any actual results in the way of immigration or of the investment of outside capital, the fact has been carefully concealed from the public. Inquiry has failed to bring to light anything in the nature of success." What is true of Florida is, we have reason to think, equally true of every State in which similar branches have been organized. It would have been passing strange if success had attended the operations of "the department of associations and organizations," to which General Manager Chilton intrusted the work laid out by the Montgomery convention. The chief occupation of that "department" has been to organize "branches" in towns and cities where it could not enlist the support of a board of trade or chamber of commerce. The organization thus formed or enlisted paid \$125, or some such sum, for the privilege of becoming a recognized correspondent of the "department," and promised to pay annually a specified sum for a continuous membership. The alleged advantages these branches were to derive from their initiation fees and annual taxes were that they were to be furnished copies of all the applications received from this country and Europe from people wishing to settle or to invest in the South. The "department" intimated that it had or would have a system of correspondence with the North and with Europe that would concentrate a large proportion of these inquiries at its headquarters.

The convention at Montgomery was respectable in numbers and in the generally high character of the delegates, most of whom were representative men of the States from which they were accredited. The purpose for which they assembled was most praiseworthy, and their deliberations were marked by earnestness and by wise counsels. Most of the members were men of large affairs, who had no time to give to the details of the work they prescribed. They delegated this to those they supposed capable. Therein lay their blunder. They never dreamed that the broad plan they devised would dwindle down to an alleged "department" for peddling out correspondence, that would in less than a year after its creation become a public laughing-stock, belittling that convention's well-

intended plans, and absolutely in the way of all other well-devised and liberal movements for the benefit of the South.

It is astonishing that, with these facts patent to all who have noted what this "department" has been doing, governors of States, mayors of cities and editors of leading newspapers in the South should give it their quasi endorsement. It can be accounted for only by presuming that they were impressed at the time with the highly respectable character of the Montgomery convention, and that they have not seen the ridiculous and disgraceful outcome. It is to be hoped that among the many strong men who have been appointed delegates to the coming convention at Asheville there will be enough in attendance to prevent any continuance of the farce that has been played for the past two years.

#### Difficulties Wisely Adjusted.

The announcement of the embarrassment of the United States Rolling Stock Co., which owns two plants in the South, the one at Anniston, Ala., being one of the most profitable industries of the kind in the country, was received with regret throughout the Union, and everywhere people waited anxiously, hoping for the best, but fearing that the company's affairs were seriously involved. The publication of the facts that led to the application for a receiver instantly relieved the general anxiety. The existing money stringency compelled this company, with assets immensely larger than its liabilities, to seek the protection of the court in order that it might treat its creditors justly, save its great plants unimpaired, continue to employ its large force of workmen and carry out its numerous contracts.

The company's creditors approved of this course and showed their sense of the situation, their faith in the financial soundness of the corporation and their appreciation of the great ability of its management by joining with the stockholders in a request to Judge Blodgett, of the United States Court, in Chicago, to appoint Mr. A. Hegewisch, president of the company, its receiver. This was done, and the court also ordered that the business be continued as heretofore without interruption. By adopting this wise policy the company will be able to tide over these temporary troubles, regain the credit it has enjoyed for nearly twenty years, and place itself upon a sound and dividend-paying basis.

The situation for this company is quite similar to that of many State banks of issue that in troublous times suspended specie payments. No one questioned their solvency. Every one recognized the emergency, and all applauded their policy. They acted without authority of law for the public interest, assuming all responsibility, and State legislatures hastened to validate what they had done, thus setting the seal of public

approval upon it. In this case the United States Rolling Stock Co. appealed to the law and obtained its sanction.

It is a grand thing for the country in many ways that this sagacious policy was adopted. Aside from all other considerations, the transportation of the enormous freights offering to all railroads will require many more cars than they now have at command, or than all the car construction works in this country can immediately supply. Had the great shops of this company in Illinois, Ohio and Alabama been compelled to shut down, the lack of the rolling stock which they are under contract to supply would have affected nearly every manufacturing and trade interest in the country. This possible obstacle to traffic has been removed; the company will go ahead.

SCHEDULE C of the new tariff bill, which prescribes the duties upon metals and manufactures of iron and steel, has in paragraph 133 the following: "Sulphur ore, as pyrites or sulphuret of iron in its natural state, containing not more than three and one-half per centum copper, seventy-five cents per ton; provided, that ore containing more than two per centum of copper shall pay, in addition thereto, one half of one cent per pound for the copper contained therein; provided also, that sulphur ore, as pyrites or sulphuret of iron in its natural state, containing in excess of twenty-five per centum of sulphur, shall be free of duty, except on the copper contained therein, as above provided." Taking advantage of this law, the Rio Tinto Co. has sold, according to London advices to the Engineering Journal, 250,000 tons of pyrites, with an option to increase the amount to 500,000 tons, for shipment to some of the great acid manufacturers of the United States. Thus the prediction made in the able series of papers prepared for the MANUFACTURERS' RECORD last winter by Mr. W. H. Adams, M. E., is about to be fulfilled. How the friends of protection who were members of the ways and means committee could have been so blinded by foreign importers as to make the foregoing provisions passes comprehension. They, by their action, gave a severe blow to a new American industry that was rapidly assuming importance, and which may stop, for the time being, the development of what bids fair to become a source of great wealth to the South. Not a farmer will derive a particle of benefit from this law, although ostensibly enacted with that purpose in view.

THE principal owner of the Whitelaw Gingham Co., of Scotland, accompanied by his agent, was in Connecticut last week looking for a suitable site for the construction of a factory. Mr. Whitelaw said that owing to the new tariff it was necessary to manufacture their goods in this country. His company has a capital of more than \$1,000,000, and gives steady work to 600 employes.



# THE LONDON LIQUIDATION.

## Its Causes and Consequences.

### WHAT IT MEANS FOR AMERICA AND FOR THE SOUTHERN STATES.

#### A New Departure in Financial Control and Industrial Development.

[Written for the MANUFACTURERS' RECORD by  
GEO. B. COWLAM, Knoxville, Tenn.]

The cable brings us the information that a limited liability stock company, with a capital of one million pounds sterling, is to be erected upon the old foundation of Baring Brothers & Co., and that the business of the old firm is to be liquidated during the next three years by the Bank of England syndicate, which was obliged to shoulder the load resulting from Baring Brothers' share in the enormous speculations in South American wildcat made under their leadership. In the past few years South American securities, mainly from the Argentine Republic—national, State, municipal and corporate—to the amount of more than one thousand millions of dollars have been floated in Europe, and almost wholly in England, either directly through Baring Brothers & Co. or indirectly, because of confidence inspired by the unlimited operations of this great firm in that field of speculative investment. When the crash came the liabilities of the firm on South American account were, in round figures, something like one hundred millions of dollars. What their assets will bring is only known to the future, but a guarantee of fifty million dollars by the syndicate, in order to get three years in which to unload them on the public, does not indicate that they are valued very highly in "spot cash." The other nine hundred millions of like securities are scattered about among smaller investors, each of whom must take care of himself as best he can. The Barings had to be taken care of because the crash of their downfall would have wrecked the whole financial fabric of Great Britain for months, if not for years. Self-defense was the mainspring of the formation of the syndicate by the Bank of England, the Rothschilds and others. For three generations the Barings have been regarded as, and have been in fact, the greatest and most powerful financial and commercial house in the world. On the downfall of the first Napoleon, seventy-five years ago, they only were able to furnish the indemnity of millions of ready money which secured the evacuation of Paris and of France by the allied armies, and since then their power has been ranked as co-equal with that of nations.

British supremacy in European affairs was always based upon resources in ready money. In addition to such forces of her own as England could bring into action on land and sea she could find money—the "sinews of war"—to arm, equip and supply the troops of continental countries, rich in population but poor in cash and credit. In a word, she played the part of the capitalist in great undertakings alike of peace and of war, and got the capitalist's share—the

lion's share—in results achieved. Napoleon the First built up his power entirely by military forces and measures—by the strong hand. The money of England supplied the allied powers, and finally the combined forces of England and Europe overcame France at Waterloo. Here England got the substantial results in the treaties.

From the time of Waterloo until battle of Sadowa England held the balance of power in Europe, making or preventing European wars only as war or peace would serve, incidentally, the expansion of her commercial interests. But just after the close of our civil war the Kingdom of Prussia, strong in the perfection of its military organization, under the lead of Bismarck, set out on just such a purely military scheme as had pushed the ambition of Napoleon I—to get what he wanted by fighting for it. Crushing Austria at Sadowa, Prussia was able to overcome France, and quickly following up results gained at Vienna, clinched them at Paris, created the German Empire wholly controlled by Prussia, and became the military arbiter of Europe. From the treaty of Paris onward England has had her hands more than full in the work of sustaining British financial, industrial and commercial interests. In this task no other single instrumentality has exerted an influence at all comparable with the mercantile and commercial operations of the house of Baring Brothers. They were the greatest merchants in the world. Their capital and credit, and that of their followers, were used in investments to create commerce and trade between England and foreign countries; in a word, to carry out the only policy which can sustain British interests by developing countries and industries abroad whose exchanges would keep the British machine going in all its departments of finance, manufactures and shipping. Enormous as are the figures of the assets and liabilities of the Barings, their failure is therefore far more significant in other ways than in the money losses involved. What has happened to them is what is happening to Great Britain as a whole. The more advanced and prosperous nations of the world are more and more building up institutions at home to supply their needs, and England's trade is necessarily becoming more and more dependent on the development of new countries with undeveloped natural wealth and untrained, unskillful populations; in other words, is becoming necessarily more and more speculative, because so largely subject to all the risks of pioneer work.

Great Britain is simply a workshop and mine combined, with her markets of supply and demand scattered all over the world, and the sea for a highway. She must haul in her materials and haul out her products. This makes a brave show of commerce. It employs many millions of capital and hundreds of thousands of men. But it adds just that much to the cost of the product finally delivered where it is consumed, and by just that much narrows the margin of profit. Distance is the friction—the lost power—of the commercial machine. For years past the increased exports of Great Britain have been in such things as coal and machinery imported by other countries to enable them to supply their own manufactures at home; in a word, exports of clubs to break her own head with. Her increased imports have been in the necessities of life—food products. Competition to secure freight for the vessels and cheaper food for the industrial classes long since drove British lands largely out of general agriculture into stock raising, again from stock raising into dairy farming, and then imported butter and cheese drove out the home-made article just as bread and meat had done before. What was gained by her maritime and industrial classes was more than lost by her farmers, who could not, with high land rents, compete in any branch of agri-

culture with the cheap lands of foreign countries reached everywhere by British ships. Nor was the gain to manufacturing classes permanent, because these foreign countries have been building up their own manufactures and cutting down the profit on imported supplies, so that commerce—the shipping interest—which must have its toll for carrying, must get in turn out of the manufacturer, and, in proportion as this margin of profit narrows, capital must have a larger share for its increased risk, both from the maker and the carrier. This has been the condition of things in the Old World, growing in intensity during recent years. As a result of it the countries of the Old World have been doing what individuals do when hard up—speculating in new fields. Germany and Belgium have been taking a "flyer" in Congo land; France went wildly into the Panama canal and other Central American schemes which were liquidated a year ago at great loss, and now England is liquidating her South American ventures.

The failure of Baring Brothers has called a halt, not only in Great Britain but in every investment country in the Old World, in development schemes of all kinds in Spanish America, Egypt, Cape Colony, Congo and all other fields of like character. This is a large world, and it cannot be developed all at once; there is not capital enough to go round. The inevitable effect will be to concentrate investments upon such fields as have proved profitable in the past, and have a solid and broad foundation in every condition requisite for future profitable extension of work.

Our own country will more and more attract attention. No other country, no other age in the world's history, can show such progress in the creation of wealth and such widespread prosperity among the people as the United States to-day. Our natural resources, greater than those of all Europe combined, have only been touched on the edges and outcrops, so to speak. While in England and all the more prosperous countries of continental Europe the cost of living and of production in all industries is increasing because of exhausted supplies of material, with us it is decreasing day by day as we open up our richer regions to capital and labor. We have more than half the railway mileage of the world, and water transportation by sea, by rivers and by lakes, and have only to adjust our varied productions of the farm, the factory and the mine to symmetrical proportions in order to permit unlimited increase in wealth and in prosperity. We have the material, with every natural condition for making it useful in the highest degree. We have sixty-five millions of people to work it up. We have the skill, intelligence, industry, thrift and enterprise to carry on work on a scale never dreamed of in any other country or age. The ability of the American people to adapt themselves to work in hand—to "catch on"—has long been proven superior to that of any other people. The results they have achieved in the creation of wealth, comfort and progress are entirely without parallel in the history of the world. What they have done and are doing day by day is the best guarantee of what they can do.

The most fundamental industry in the world is the production of iron. It is the prime factor in modern civilization—in agriculture, in manufactures, in mining and in commerce—whether by sea or by land, whether in the ship or the rail, or the engines which drive vessels or trains. Without its strength and adaptability steam power could not have been developed nor hand power much used. Take this industry, then, as an indication of our progress, and go back thirty years, in order to include the four years of destructive civil war in the count and make a fair average. During this period, and long before it, the United States was second only

to Great Britain in iron production. Great Britain, the United States, France, Germany, Belgium, Austria and Sweden during this period made over ninety per cent. of the world's production.

Production in Tons, Pig Iron.	
Country	1860. 1870. 1880. 1889.
U. Kingdom	3,886,754 5,663,315 7,781,813 8,245,336
U. States	919,770 1,865,000 4,293,414 8,517,066
Germany	393,741 1,155,591 2,799,038 4,397,594
France	797,933 923,842 1,733,108 1,867,622
Belgium	319,943 565,234 610,000 847,360
Austria	312,354 409,953 465,518
Sweden	293,438 405,713

Total. . . . . 6,535,692 11,169,573 19,660,630

The tons given for Great Britain are gross tons of 2,240 pounds, those of the United States net tons of 2,000 pounds. The figures are from the official reports of the British Iron and Steel Institute. Our iron production for 1889 fell barely short of that of Great Britain. For the calendar year 1890 our production will reach ten million net tons, and will exceed the production of Great Britain.

Taking the production of iron in its highest form—steel—the record of our advancement during the same period is even greater than in the production of pig iron. The tables are not complete for the earlier years, but in 1860 out of a world's product of 415,855 tons the United States made 12,000 tons, Great Britain 160,000, Germany 109,000 and France 97,000. In 1870 we made 40,000 tons, Great Britain 215,000, Germany 125,814 and France 83,788. The Bessemer process practically created the steel age by making its production possible on a large scale. Great Britain had the advantage of a good start, but in 1880 out of a total world's production of over three and a-half million tons Great Britain made 1,044,382 tons and the United States 1,074,264. This ascendancy we have maintained and increased, making, in 1889, 3,169,643 net tons of 2,000 pounds, against 2,140,793 gross tons of 2,240 pounds made by Great Britain.

Taken in another way, our productive energy in hand, horse and steam-power, computed in foot tons, exceeds that of Great Britain and Germany combined and is more than three times that of France.

With an area equal to that of all Europe and natural resources far greater; with a homogenous people working under common laws, we must in time exceed not what combined Europe is in numbers and wealth, but what she might have been had she been from the start one country, working in harmony instead of divided into a score of nations, with artificial and unnatural boundaries and still worse divided by languages, laws, prejudices and old grudges and wasting their energies in war and in standing armies. This fact is becoming better understood day by day, and especially by capital. This year we have with us the iron and steel institutes of Europe looking over our resources. No body of men having such influence to move capital into our country from abroad have before visited us. Their coming cannot fail to produce great results. They are especially interested in the South, and are studying with great care the resources of the mountain region of our Southern States, its iron, coal, timber, etc., with a view to its possibilities for industrial development. Nowhere else on the earth's surface can such a coal field be found as in the South, paralleled for 700 miles, from Shenandoah Junction, W. Va., to Tredegar, Ala., by three great and continuous belts of iron ore of every quality for foundry and mill iron and Bessemer steel, nor such naturally advantageous conditions for working them up. Our own productions in the United States are creating surplus wealth for investment at the rate of a couple of hundred million dollars a month. It is going more and more to the rich fields of the South, whose products will adjust, balance and benefit those of the industries of our Eastern States and the farms of the West. The foreign situation points to a concentration of foreign capital for investment in the United States and mainly in the South. It is logical to look for an even greater impulse to our progress in 1891 than that of 1881, then the most marked in our history, but instead of being a Western railroad boom as then, it will be naturally and inevitably mainly concentrated in industrial development in the Southern Appalachian region.

## PROFITS IN PATENTS.

### Some Interesting Facts Recalled Apropos of the Coming Convention of Inventors.

**The Bell Telephone, the Pullman Car and Other Big Money-Makers—What Has Been and What Will Be Accomplished in the Line of Steel-Making Inventions.**

On the 15th day of next April a convention of inventors and manufacturers of patented articles will be held in Washington. The time chosen is appropriate, for then will be celebrated the centenary of the founding of our national patent system and the issue of the first patent by the United States. The call for this convention originated in this wise. Mr. James T. Du Bois, editor of the *Inventive Age*, called attention early last summer to the fact that the first patent issued by this government was granted in 1790, and thereafter letters poured in upon him from inventors all over the country urging that the event be duly celebrated. Early this month a preliminary meeting, called by Mr. Du Bois, was held at the Arlington Hotel in Washington at which it was decided to invite a convention of inventors and manufacturers to assemble at the capital on the 15th of April, at which date it is proposed to celebrate the centenary of "The City of the Nation," the national capital of 62,000,000 people.

In his recent annual report, Hon. C. E. Mitchell, commissioner of patents, said: "No law or legal system in any age or land has ever wrought so much wealth, furnished so much labor for human hands or bestowed so much material blessing in every way as the American patent system."

The purpose of the proposed convention, as set forth by Mr. Du Bois and adopted by that meeting, is "to impress upon the nation the truth that the grand career of our country in manufactures and the industrial arts virtually began with the patent system—the creation of the patent office—and that our magnificent progress stands as the indisputable result of that superb system."

The American theory at the base of our patent system is that a patent is a contract made by the inventor with the public. The first agrees to tell the people of an improved method he has devised for doing more expeditiously or more economically something that has been done before, or else of a new discovery he has made that will be useful to them when he has taught them how to avail themselves of it. The condition of this ultimate gift to the public is that the inventor shall have for a term of years a monopoly of production to reward him for his genius. The purpose of the patent laws is to encourage invention for the public good. Under the theory and practice that have prevailed in this country for a hundred years, very many thousand patents have been issued at Washington; invention has been stimulated to a degree unknown in any other country, until in many branches of mechanics an approach to perfection has been made that leaves little to be expected or desired.

Patent laws are of comparatively recent origin; they are found on the statute books of all civilized nations. The earliest in France were enacted in 1790. In this country the first patent was granted that same year. Since then our laws have received numerous additions and emendations. While by no means all that they ought to be, they are probably nearer perfection, in so far as the rights of inventors are concerned, than those of any other country. The costly and protracted litigations that for three-quarters of a century were almost invariably necessary to the establishment of inventors' rights are now

the exception instead of the rule. American citizens have been educated to believe that it is quite as great a theft to steal a patent as to steal a pocket-book, and consequently, while there are and probably always will be attempts to infringe upon patents, it is no longer as easy a matter for transgressors to employ the law's delays in their favor as it once was. This fact and the knowledge that all patents that have met with public favor have been sources of great profit to their owners and to those who manufactured the articles covered by them, have created a public confidence in their actual value that has made them acceptable securities for loans, as well as substantial assets for individuals and corporations. Once any corporation that, at its formation, should have issued a million dollars of capital stock to represent the value of the patent it had acquired, would have been considered bankrupt from the beginning, but of late years much more than this has been done repeatedly without exciting either surprise or comment.

Among the many American patents that have been the foundation of great industries during this century a few may be noted. First in importance, because of its enduring effects upon the country's and the world's trade and commerce, was Eli Whitney's cotton gin. It was years before that eminent mechanic succeeded in establishing his rights and realizing his deserved rewards, but for a long time before his death he enjoyed what at that period was considered a great fortune, and he left to his children a large property and the better legacy of an illustrious name.

Charles Goodyear, the inventor of vulcanized rubber, toiled many years in poverty to perfect his invention, and after that he spent a much longer time in litigation before his rights were fully assured, but he also eventually acquired much wealth and was the founder of flourishing manufacturing companies that exist to this day.

Less than forty years ago Elias Howe discovered that if the eye of a needle were placed near its point instead of in its head a sewing machine could be run successfully, and that patent was the forerunner of many others that resulted in the Howe, the Singer, the Wheeler & Wilson and other sewing machine patents, that later represented millions of dollars of capital, immense manufacturing plants, employment to thousands of skilled mechanics and a world-wide commerce.

The Corliss engine that furnished the motive power for the aggregation of machines, great and small, in the massive iron building at the Philadelphia Centennial Exposition was a patent that gave to the inventor a world-wide fame, and to him and all his associates great profits.

The gimlet-pointed screw was another American patent upon which a corporation was created that sent its goods to the ends of the earth and paid annual dividends to the stockholders long after the patent had expired.

Professor Morse, a painter of portraits, an experimenter with the discovery of Daguerre, was the inventor of modern telegraphy. His patents were the foundations upon which were built the great systems of the Western Union and the ocean cable companies, and of all those lines that now girdle the world and flash intelligence from pole to pole. Of their profits to this day and their growing importance to the world there is no need to write.

"The Wizard" Edison began his marvelous career, which has not yet reached its zenith, by his invention of the duplex telegraph, which at once gave him fame and fortune.

Professor Bell's telephone is another and a most signal illustration of what great corporations and enormous profits can be built upon a good patent. An unknown thing in 1876, it had before 1880 secured

a world-wide adoption, and the "hello" of the callers of all languages sounds daily on every continent and on most of the islands of the seas. When Professor Bell was trying to introduce this patent he offered a large interest in it to Cyrus W. Field for \$10,000. Mr. Field had risked his all upon his faith in the eventual establishment of the under-the-sea cable system, and had won a great fortune and much fame by his confidence and courage. But to him the Bell telephone seemed too small a matter, and he declined to accept the liberal offer, a decision he has since sincerely regretted, for this patent pays dividends of 20 per cent. per annum on a stock valuation of \$25,000,000, and every man of the original stockholders, every local company organized in its earlier days to introduce it, besides the inventor himself, realized immense profits from their respective connections with the patent before the final consolidation already noted.

The number of American patents of modern date that have been the base of enormous profits to all concerned is too great for special mention. The McCormick reapers and mowers are but typical of all that class of patented agricultural machines that have returned immense profits to their inventors and to the capitalists who furnished the means for their manufacture, while at the same time they have cheapened the cost of planting, tending and securing all agricultural crops.

The Westinghouse air brake is equally typical of all those ingenious devices that contribute to the speed, comfort and safety of railroad travel. That invention made Mr. Westinghouse one of the wealthiest citizens of Pennsylvania, while all his associates realized large rewards.

The Pullman systems of sleepers, drawing-room and vestibule cars are instances in the same line. George M. Pullman had ideas without money. Other men had money who appreciated the value of his ideas. A combination was made between money and ingenuity, and the city of Pullman, Ill., the universal use of the Pullman cars and the enormous wealth acquired by Mr. Pullman and his associates are the well-known results.

The American type-writing machine was introduced to a curious public in 1876 by the Remingtons, of Ilion, N. Y. In the building set apart for woman's work, half a dozen attractive young women sat behind as many machines. Placards announced that letters would be written from dictation by the operators at a dime apiece. Those young women were kept busy daily; the type writer was advertised effectively and its powers were exemplified. In the fourteen years since that introduction typewriting machines have gone into use all over civilization; thousands of young women have been able to earn generous livings as experts in their use, and inventors and manufacturing companies have made and continue to make large profits.

Recently this government dispatched one of its newest and finest cruisers, the *Baltimore*, to Sweden, to convey to that country the mortal remains of the inventor Ericsson, a native of that distant land, but an adopted citizen of the United States. The *Monitor* of 1862, and the war ships afterwards built upon its model, gave to that ingenious Swede his hold upon the affections of Americans, while other inventions of his in the peaceful arts have furnished employment to thousands of people and have paid large profits to those who manufactured them.

Hoe's printing presses revolutionized American newspapers, for they made it possible for metropolitan journals to send out their great Sunday editions, every copy of which contains more printed matter than ordinary books, and to print publications of every kind, from Shakespeare to a four-page pamphlet, more expeditiously and at less cost than by any other press.

The Hoe family have realized great wealth from their inventions.

The Thomson-Houston Electric Co. furnishes one of the most remarkable illustrations of the value of patents combined with capital when controlled by brainy men. Its systems of electric light and applied electric power are in use in all parts of the world, and the money flowing into the company's coffers is enabling it to pay frequent and large dividends to every stockholder.

American patent laws, while originally designed to stimulate native ingenuity and to protect its achievements, were at the same time made broad enough to protect the owners of foreign patents. Our earlier law-makers saw that the true way to protect American ingenuity abroad, and to get the best products of foreign ingenuity for home use, was to open the privileges of the American patent system to the inventors of every nation. No patents of the present day are better known than those covering the Bessemer and basic methods for the manufacture of steel. While both these are British inventions, yet the first has long been in use in this country, and has revolutionized our own iron industry, as well as that of the world. The basic process, recently introduced at the South, will probably result in the construction of many other furnaces for its employment. Enormous fortunes have been made both abroad and at home by those who purchased the right to employ the Bessemer process, and there is no prospect of their falling off in the future. Among all the patents issued since laws were enacted for the protection of inventors, it is questionable whether there has been another that has been the source of equal profit in the same length of time both to the inventor and to all who acquired rights from him. As recently noted in the *MANUFACTURERS' RECORD*, the works built by Sir Henry Bessemer for the introduction of this patent yielded a net profit of 8,100 per cent. within 14 years, not counting the royalties received by Mr. Bessemer for the use of the patent by others. And, as the use of steel increases in even greater ratio than does the human race, this invention will probably go down to history as the most profitable of any of those that originated in the Nineteenth century.

That other steel-making processes will be invented and patented goes without saying, for the investigations in that direction have long employed the minds of some of the greatest of living experts, and the *MANUFACTURERS' RECORD* reveals no secret in stating that processes will soon be made public covering a wonderfully economical process that will make as momentous a change in the production of steel as did the Bessemer process.

For all these reasons, and for many others, the *MANUFACTURERS' RECORD* cordially endorses the proposed celebration of the centenary of the patent system of the United States, and bespeaks for it the hearty support of all American inventors and manufacturers.

THE Cosmos Fibre Co., of Charleston, S. C., has, according to the *Charleston News and Courier*, been making rapid progress in the preparation of vegetable and wood fibres for the general market. Its latest achievement is said to be the perfecting of a process for converting the fibre of tree moss into a commercial form in a few minutes, instead of submitting it to the slower, old-fashioned method of rotting in earth for a term of weeks. The mechanical device employed is pronounced simple and ingenious, and the economical feature of it is that the covering fungus is saved and utilized as a fertilizer, it containing 200 per cent. of ammonia. Bales of this prepared moss find a ready market among upholsterers and carriage makers.



## GATEWAY TO THE SOUTH.

Shenandoah Junction, "The Best Unoccupied Town-Site in the South."

CROSSING POINT OF TWO GREAT RAILROADS.

[Special Cor. MANUFACTURERS' RECORD.]

STAUNTON, VA., November 25, 1890.

The time to make money is when most people have just sustained heavy losses, provided investments, whose merit can be proved, are presented. Therefore I shall directly accentuate a few facts which are worthy of the most exhaustive investigation by all who wish to place their funds where the natural growth of the country will guarantee large profits and insure against any loss whatever. These be brave words, but wait and hear before pronouncing judgment.

There will be more profit to buyers of town-sites with large bodies of high-grade iron ore adjacent and within easy reach of coke and coal than in any other branch of investment or speculation that the remaining years of this nineteenth century can possibly present. And surprising as it may sound, I am satisfied that probably the most desirable location, combining with the advantages just named a number of others equally extraordinary, has so far remained undeveloped. This particular point is where the Shenandoah Valley Railroad crosses the main line of the Baltimore & Ohio. The reason why this marvelously favored situation has been apparently neglected has been due to a variety of causes which it is not now necessary to dwell upon. As a town-site it is in many respects the best unoccupied point in the whole mineral region of the South. Its transportation facilities are unequalled by any new place in that section. It is here that the double track of the great Baltimore & Ohio Railroad, reaching from the seaboard at Baltimore to the Lakes of the far West, is crossed by the line of the Shenandoah Valley Railroad, now owned by the Norfolk & Western, and to be double-tracked next year. It is the crossing point of two of the greatest railroad systems of America—the Baltimore & Ohio, which now stands ready to give increased attention to the building up of new towns, and the Norfolk & Western, already the greatest town-building railroad in the United States. At no other point in the entire South do two such railroads cross. These transportation facilities alone are enough to insure the building at this junction of another Roanoke. Everything is now ripe for action and a great money making opportunity is about to be offered, and wise men will make a note of it that even now, although stocks are depressed, buyers of iron and coal properties and of adjacent sites for industrial towns will get back more dollars for one than by any other means to-day discernible.

Indeed there seems to be a consensus of opinion among discerners of the signs of the times that since the recent "flattening out" in Wall Street the number of inquirers—and inquirers who mean business—for chances to make money on a substantial basis will be enormously increased, for the more money one loses the keener becomes the desire "to get even," and the greater the disgust with unsubstantial and fictitious things—the stronger the yearning for things whose foundation cannot be shaken by the caprices of less than half a dozen heavy "bulls" or "bears."

History ever repeats itself, and the effect of the recent crisis can but prove beneficial to the South, as the MANUFACTURERS' RECORD of last week so conclusively demonstrated. It was the panic of '84 that gave to the Western boom its "second wind," and induced thousands who had become sick of Wall Street to "seek green fields

and pastures new." At that time these new fields were in the West. To-day the green fields and pastures new, aye, and the coal and the iron, and the timber, and everything that goes into merchantable commodities, are in the South, and, in my opinion, more abundantly throughout the region between the Potomac river and the southern end of the long, rich valley which there begins, than anywhere else in all that broad, heaven favored land we call the South.

This point of junction, this veritable gateway point, where alone the Baltimore & Ohio and the Norfolk & Western meet, and that, too, in the richest part of the richest section of that great chain of valleys running from the Potomac river to the mountains about Tredegar in Alabama, happening as it does to be almost entirely so far untouched, cannot fail, the day its resources are made known, to become an object of investigation to men of means and energy and acumen and judgment almost everywhere, for the desire for money-making never abates one jot or tittle. Stocks may rise and stocks may fall, but the thing of real merit holds its own forever.

The fact is, men of moderate means, and men who own their millions have always been and will forever be not only anxious to secure investments where their money will be safe, but likewise on the *qui vive* to make "quick tours," and the point whose resources give promise of security on the one hand and speedy profit on the other is the one which will get the ear of the public when "not at home" is the answer given to every other kind of applicant.

Now the resources of this crossing point of the two greatest coal roads which penetrate the South are of such amazing richness that I freely commend them even at this time, when men of means, more than for a long time past, will be prone to scrutinize with microscopic caution every object which they deem to look into at all.

Some say "coal is king," some say "iron is king," and there were once upon a time those who said that cotton was king; but the truth is there are now no kings in the industrial world. There are certain great co-operative elements which nature and the railroads make available for conversion into what is nearer king than anything else in this wicked sublunary sphere, and that is money. When production exceeds consumption you can make money almost anywhere in utilizing these raw elements; but when margins become close those localities where these raw elements are most easily and cheaply procured, and whence the commodities produced may be delivered to consumers most advantageously, such and such alone are the points which far-seeing manufacturers will seek.

For the sake of illustration, let us consider the agricultural industry. I can remember the time out in Kentucky when wheat was at \$2 a bushel and hogs worth 10 cents a pound. Then a farmer could make money on almost any kind of land; but when wheat got down to 70 cents and hogs to 3, then only those who had superior land could make a comfortable livelihood. But this is an old, old story.

Old story as it is, however, it means that now is the time when astute manufacturers will seek the best locations. Like the farmers on mean ground should in their days of plenty have bought better ground to provide against the inevitable evil day, so manufacturers should now in these days of great demand prepare for the period when every edge will have to cut. "In time of peace prepare for war."

There are towns and towns and townlets in the great New South. Most of these have merit. Some, I confess with regret, have none whatever. There is about one in every two a fraud, just as there was "a liar from the beginning" among the Apostles. The other eleven are hon-

estly conducted, and have more or less of merit. In Virginia the percentage is probably less than one in twelve. Of course all can't become big cities, but it is my conviction, after careful investigation (and no man has better facilities for such investigation), that there will be at least twenty new cities between the Potomac river (which runs about six miles north of Shenandoah Junction) and thence to the Tennessee line. Basic City will be one of these. Buena Vista will be another. Goshen and Glasgow, if properly managed, ought to be successes. Shendun has a great, brainy head behind it. Luray is rich in resources. In my honest judgment, however, the town-site around Shenandoah Junction, "if handled half way," will exceed any new town in Virginia except Roanoke, which latter I am convinced will, when the Roanoke & Southern shall be finished, leap into a boom, the like of which has seldom before been witnessed.

I used to say that men and money could build a town anywhere, and so they might, but the substantial town must have resources behind it. Shenandoah Junction has resources which all the world will wonder at so soon as the world begins to realize their magnitude. Its iron is in unlimited quantity and of high quality.

I have classed this point (whose name ought to be changed to Magnetic City) as in the Valley of Virginia, whereas in fact it is in West Virginia. And this suggests a bit of history. When the organization of the State of West Virginia was broached the Baltimore & Ohio Railroad managers hied to Washington and said to the powers that were: "We don't want any portion of our road in the rebellious section. We enter Virginia at Harper's Ferry, in the county of Jefferson, and while it is true that this and the next two counties belong geographically and topographically to the Old Dominion, nevertheless, on account of the fact that our road runs through them, we want them to remain in the Union." The probabilities are that these officials feared the rebels would win, and therefore reversed the axiom so as to read, "in time of war prepare for peace," not wishing to be subject to two separate governments. However that may be, they got the counties of Jefferson, Berkeley and Morgan transferred to the new State which an Act of Congress created. And thus the Valley of Virginia was despoiled of its fairest domain.

In fact, it is substantiated by my observation that few people realize that any portion of West Virginia lies east of the Alleghany mountains, and therefore when one speaks of a locality in West Virginia he thinks of the Kanawha country, where, it may be remarked, *en passant*, a Baltimore company, headed by R. A. Wooldridge, owns the richest coal and riparian property that Mother Nature ever smiled upon within a like area. All the same, the masses never think of such a place as the one I am now specially emphasizing, i. e., Shenandoah Junction, in Jefferson county, West Virginia, as being a part of the world-renowned Valley of Virginia. Nevertheless, Shenandoah Junction is the site for the future gateway city of the great valley of the Old Dominion.

Outside of Woodford county, Ky., the garden spot of the matchless "Blue Grass region," there is nowhere on this continent such a paradise as the country immediately adjacent to this special point. It is high, gently rolling and fertile, even to exceed the fertility of Kentucky's most famous section.

In the area immediately adjacent to the crossing of the two great trunk lines there is not "a hill or hollow," and when the land shall be subdivided into lots there will not be an undesirable lot on the entire plot.

As a place of residence there is no location in Virginia (and that means all the world as I have been told by men who

have travelled everywhere) superior to this.

The distance from Washington is only 63 miles, a run of less than two hours by fast express trains. From Baltimore this junction is only 40 miles or 45 minutes' ride farther. From Harrisburg, the capital of Pennsylvania, the distance is about the same as from Baltimore. As I said, Shenandoah Junction is the gateway of the entire South. It is the nearest point in the Valley of Virginia to Baltimore, Washington, Philadelphia and the North at which a town can be built. All through travel between the East and West over the Baltimore & Ohio, and all travel from the North via Harrisburg to the South and from the South to the North by the same line passes this point.

But it is as a manufacturing point that I consider this the most desirable acquisition in Virginia. The Norfolk & Western is about to improve the Shenandoah Valley, which it purchased outright on September 30, so that it will have the finest track and road-bed in the South.

The Norfolk & Western people are naturally ambitious to build up a great city at the northern end of their Shenandoah Valley line as they have done at Roanoke, the southern end, and Shenandoah Junction is the only point at which this can be done. But the Norfolk & Western work will be fully duplicated by that of the Baltimore & Ohio.

The latter road has a line directly from Shenandoah Junction to Connellsville and Pittsburgh. The distance to Connellsville is less than 200 miles.

Shenandoah Junction is closer to Connellsville coal and coke than any other prospective or actual manufacturing point in the South. The building of a town at this point would give the Baltimore & Ohio people the opportunity which they have long desired, to build up big industrial towns along this line. This would be the first point between Baltimore and Cumberland where it is possible for them to do this. The great Cumberland coal fields of Maryland are but 90 miles from the Junction. And some three or four million tons of coal from those fields and from West Virginia annually pass this point to reach tidewater at Washington and at Baltimore. Thus furnaces and factories at the Junction could draw coal and coke by the Baltimore & Ohio from Connellsville, Cumberland and West Virginia, by the Norfolk & Western and Chesapeake & Ohio from the Pocahontas and Kanawha coal fields and by the Pennsylvania & Cumberland Valley Railroad from Pennsylvania.

This railroad competition would enable the Junction to secure such rates as will insure cheaper coal and coke than is obtainable anywhere else south of the Potomac river. Indeed, I believe that fuel will be cheaper than anywhere else in America except at places like Cedar Grove in West Virginia.

While Shenandoah Junction is located in the richest part of the richest agricultural region of America—the wonderful Shenandoah Valley of Virginia—it is also surrounded by one of the richest mineral and timber districts of the whole country. Iron ores in unlimited quantity and of high grade—even the best Bessemer ores—are found in great abundance tributary to this point. Within three miles of the Junction is the old Antietam iron property, where ore has been mined for the last sixty or seventy years, and from which iron ore is now shipped to furnaces in Baltimore and elsewhere. There is ore enough in this property alone to supply many furnaces for many years to come, but even this property, as great as it is, is only a small part of the vast mineral wealth tributary to this point. Within ten or fifteen miles there is more ore, much of it having been prospected only during the last four or five months, than the general public has any conception of. A very able practical iron-maker of

long experience in Europe and America, who is moreover one of the ablest mineralogists that I have ever known, after weeks of careful investigation of the advantages of Shenandoah Junction for iron and steel production, told me a few days ago that he was convinced that "it is the best point in America for iron and steel-making." "It has," he said, "the supreme advantage of the very best transportation facilities by trunk lines to the North, to the South, to the East and to the West; it has the highest grade of coke from Connellsville, Pocahontas and West Virginia at competitive freight rates; it has the greatest developed bituminous coal region in America only 90 to 100 miles distant, and several million tons annually pass here, and it has high-grade ores in practically unlimited quantity within from 3 to 20 miles. Thus it can assemble iron-making materials at the lowest cost, and then have the best facilities for distribution and be nearer to Northern markets than any other iron-making point in the whole South."

Added to these advantages for iron-making are others of great importance in the matter of lumber of all kinds for manufactures. The Baltimore & Ohio with its many West Virginia connections, including the West Virginia Central system, owned by ex-Senator Henry G. Davis and his friends, and the Camden system of roads, drains the great timber regions of that State, where every variety of hardwood is found in abundance. All of this can be made tributary to Shenandoah Junction. And then there is found at that point an immense quantity of as fine glass sand as the country can produce, limestone can be had for the asking, clays are abundant, and marble is there beyond the needs of a big city.

With all these advantages it is only necessary for a strong company to take hold of the property around Shenandoah Junction to insure the building of a town there that will duplicate Roanoke's development, and do it in much less time even than Roanoke has taken.

This Junction is the gateway of the whole mineral region of the South, and the company that holds it will be able to catch the cream of business that flows from the North Southwest.

THOMAS P. GRASTY.

DURING the recent session of Congress a bill was passed by which the general government surrendered to a corporation all its rights and interests at Aransas Pass, Texas, and gave it the exclusive right to obtain deep water at that point, but made its gift conditional upon the company's securing a depth sufficient for the passage of ships of the largest class within a specified time. A correspondent of the Fort Worth Gazette states that the company, composed of Northern capitalists, has completed all its arrangements, and that it had purchased the steel and other materials for building a double track terminal railroad from the new city of Aransas Harbor across the bay and island to the point where the two jetties will be erected, between which will be the deep-water channel crossing the bar. One jetty will have St. Joseph's Island for its base; the other will be built from Matogorda Island. Work will begin at once. The probable cost of the railroad, jetties and docks will be between \$1,000,000 and \$2,000,000. It is also stated that two Western trunk line roads will build connections to the terminal railroad as soon as a sufficient depth of water over the bar is assured.

BUSINESS men of New Orleans will, through Congressman Coleman, present a numerously signed petition to Congress, asking that a crescent-shaped breakwater may be constructed in Lake Pontchartrain, midway between its two canals, in order to furnish a harbor of refuge for vessels when storms prevail.

## Possibilities of Virginia Development.

SAVERNAKE, VA., Nov. 25, 1890.

Editor Manufacturers' Record:

There seems to be quite as much to wonder at as admire in the present Virginia industrial movement. And yet there is very little effort to analyze it; to look into the cause, and from this to reason to a logical conclusion of effect. The fact remains that 1890 found a vast region teeming with the natural resources which, properly utilized, could be readily made the basis of individual and corporate profit. The same region was practically devoid of the works and machinery, and also the industrial skill, necessary to render these wonderful mineral resources contributory to commercial uses. The transformation was and is the secret of and the *raison d'être* of the hundred and one new enterprises which at once excite the admiration of and contribute to the wealth of our people.

With all this nothing is more striking, or to the careful observer more assuring to the certain success of Virginia mineral development, than the progress made during the current year in the preparation of ores and the metallurgy of steel made from them. It may be well understood that the metal of the immediate future must be a low steel, which requires a purity of mineral for its production which is not generally found in the natural condition of such. It has been a common fault with many Virginians to ignore the value of their own mineral resources, and to accept as facts the dictum of misinformed or interested parties from other sections, who did not care to see Virginia ores successfully compete with those of other ore fields. We have been told, at home and abroad, that we have no steel ores in Virginia. This is absolutely and unqualifiedly false. I have personally mined and shipped these ores for several years directly for and to the Bessemer steel trade of the United States. I can show the personal letter of the largest steel ore consumer in the United States, if not in the world, confirming the value and suitability of these ores for steel manufacture, and stating the desire of his company to obtain not less than 250,000 tons per annum of such stock. Such a trade means over \$1,000,000 to the region whence they would be shipped. It means employment to many people. It means the transportation of 12,500 carloads of 20 tons each to the railroad companies. And yet these minerals, capable of being so utilized to the profit and benefit of man, in this State lie idle and untouched.

A more important point, and one to be noted carefully by all lovers of Virginia, is the following: For every ton of rich ore suitable for Bessemer steel uses there are all through the Piedmontane regions of the State 10,000 tons which are unsuitable, owing to the amount of phosphorus exceeding the limit required for steel, which, as phosphoric acid, is generally combined with the silica or other impurity of the gangue; or the iron content is too low to justify shipment for distance or even use at local furnaces. It requires no scientific skill to understand that if  $1\frac{1}{2}$  or 2 tons of these low-grade ores could be made into one ton of high-grade and also chemically pure ore, we could do an enormous business both in reduction at home and shipment North of dressed mineral now unutilized.

This condition has been made practicable by the discovery and invention of a simple process and application of the same to ore dressing during the past summer. The usual water concentration used in dressing the ores of the more valuable metals, although partially used with iron ores, is not generally applicable—generally from a question of cost.

The separation of ore from its gangue by magnets, applied by a rotating cylinder over which the ore passes, has successfully prepared many thousands of tons of ore for steel uses otherwise worthless. There are several inventions for this method of treatment, all of merit, and results show an ore of 30 to 35 per cent. metallic iron, too low for use or transportation, made into an ore of 65 to 68 per cent. iron, with its high amount of silica and phosphorus eliminated; in short, a high-grade steel ore, worth 6 to 8 cents per unit of iron, from a worthless stone. Valuable as this is, it is confined to the magnetic oxides entirely, which by their condition render magnetic separation possible.

The millions of tons of brown hematites which from silicious impurities generally themselves carrying high phosphorus, which too often makes them unfit even for the manufacture of ordinary pig iron, were without the pale of the magnetic improvement, and could not be benefited by it. Could this be done it would mean to the South—to Virginia, Kentucky, Tennessee, Alabama—a greater discovery than the Bessemer process; than Henderson's discovery of making tool steel or crucible steel. It would make a constant and abundant supply of steel-making mineral throughout the South, and perforce make that region, with its admirable and abundant fuels, the great steel-producing region of the world.

The demand for a method generally means its supply. To a Pennsylvania engineer is due this method so sorely needed in the South, and it is now a fixed fact.

Reasoning from the well-known fact that in dressing both tin ores and zinc ores they are roasted to enable the removal of the iron ore found in admixture, and that this iron ore is almost always found in form of hydrous or limonite ore and becomes magnetic by heating, it was found that the ordinary low-grade brown hematite could be rendered sufficiently magnetic for separation by the magnetic ore separator with a moderate roasting.

The magnetic treatment rendered an ore originally 30 to 35 per cent. iron, of 56 to 60 per cent., absolutely free from silica and its combined phosphorus, and low enough in remaining phosphorus for steel—a superior steel stock again from a worthless stone. Commercially, it is figured that a cost of not to exceed 50 cents per ton will accomplish this result; and if all this be true which the tabulated results of the discoverer of the method assert, and which the Engineering and Mining Journal, an excellent authority on the subject, confirms, then the problem is solved. To the South is given the use of millions of tons of mineral hitherto unavailable, and what that means in steel production only those searching for steel stock can know. Join to this discovery that of the direct open hearth steel processes now coming prominently before the public, all of which have undeniable merit and several great ascertained values, and we may safely say that the days of "hogging the steel trade" by the basic or Bessemer patents, or the greater mineral superiority of the Lake Superior ores, are ended; that Virginia comes to the front as the great source of low steel for the United States, and that to all purposes for which low steel can be used this region will be the seat of manufacture. This means steel plate for tin plate, steel for structural uses, tool steel, etc. It means all we lack for Buena Vista, for Saverlake, for Glasgow, for all and every one of those of our town enterprises based on metallurgical industries; and it means safety, certainty, success and unlimited future prosperity to our State.

To Mr. Clement Jones, of Hokendauqua, Penn., is due this application of common sense to mechanical device. I am advertising no man, or no process, and for that matter no town, for as "good wine needs no bush," Saverlake needs no advertising beyond the invaluable aid of the MANUFACTURERS' RECORD to make its possibilities known.

## MIDDLESBOROUGH, KY.

MIDDLESBOROUGH, KY., Nov. 20, 1890.

Editor Manufacturers' Record:

The past ten days have been eventful ones in the history of Middlesborough. Thousands of visitors, coming from all sections of this country, England, Scotland, Germany and France have been entertained by the citizens of Middlesborough and shown the wonders of the marvelous city. All the rooms in every hotel, boarding house, lodging house, private house, have been occupied by guests, and extra cots had to be placed in churches, public buildings and private offices to accommodate the vast throng of visitors who have been coming on every train for the past few weeks. At this particular time, it is especially pleasant to note that the class of men now visiting the new towns of the South, no matter what section they come from, are representative men in the full sense of the word, and the result has been that our visitors were well dressed, neat in appearance, and they looked what they appeared to be—solid business men.

As announced through the press of America, the sales commenced on Monday the 10th inst., and were continued until Wednesday evening, lasting in all ten hours. Col. R. E. Edmonson, of Lexington, was auctioneer, and he had all he could do during the specified time to call off the names of those who purchased lots.

The first day's sales took place back of the railroad station, and the prices paid per front foot surprised even the most sanguine citizens of Middlesborough.

The next morning six entire blocks were sold in the immediate locality of where the South Boston Iron Works are erecting their mammoth plant, though the location is fully one mile and a-half west of the city proper; the ninety-six lots averaged \$18 per front foot. The third sale was in the afternoon of Wednesday, the lots offered being in the woods back of the furnaces, and brought on an average of \$10 per front foot.

For the three days the total in dollars was \$431,186. Besides the above, since the May sales up to the November sales the town company sold \$170,596, making a total of \$601,782 since the first of June up to and including the 12th day of November.

Independent of these sales, the real estate men of Middlesborough sold on their own account \$157,000 worth of real estate.

This makes in all nearly two million of dollars' worth of property sold in this valley since the first of January, 1890, up to the present time.

There was a large delegation here from Boston, New York, Philadelphia, Newark, Providence, Newport and other Eastern cities.

These gentlemen remained several days in the city, and spent considerable of their time visiting the coal and ore mines, the timber lands and other places of interest and instruction around Cumberland Gap.

Mr. A. A. Arthur is in receipt of the following letter, which speaks for itself:

ROCHESTER, N. Y., Nov. 8, 1890.

ALEXANDER A. ARTHUR,

President Middlesborough Town Co.

Dear Sir—In response to your invitation to the Rochester Real Estate Exchange through your representative, M. L. Hughes, secretary of our exchange, and N. S. Redfield, a trustee of the same, have been designated to visit you and to attend your sales, with a view of obtaining more particular information regarding your State, and more particularly your locality, from personal observation, and report to us as an exchange, with a view of future exchanges in real estate and a friendly intercourse in the future. Asking that your courtesy be extended to them as gentlemen and business



men of good standing in this community,  
I have the honor to be,

Yours respectfully,

A. S. ONDERDONK,

President Rochester Real Estate Exchange.

Mr. A. A. Arthur leaves Middlesborough to-day for Knoxville, thence to New York, en route to London, England, to attend the annual meeting of the directors of the Middlesborough Town Co. and the American Association, Limited. Mr. Arthur will be absent until the end of February, 1891.

Middlesborough was honored this week by the presence of a real Duke and Duchess—the Duke of Marlborough and his most estimable lady, the Duchess. The distinguished guests were accompanied by Mr. Jno. R. Procter, State geologist of Kentucky, a young lady from New York, and a suite composed of several male and female servants. They were given handsome quarters in the famous Middlesborough Hotel, seven rooms being necessary for their accommodation.

On Tuesday evening they were entertained at an elegant dinner by Mr. Ernest F. G. Hatch, of London, England. Mr. Hatch is a conservative candidate for Parliament of the Gorton Division of Lancashire.

Gen. Jno. E. Echols, vice-president of the Chesapeake & Ohio system of railroads, and the Honorable W. C. Breckenridge, of Kentucky, arrived here on a special train this morning for the purpose of spending several days in this city and to examine the resources of Middlesborough.

Mr. James P. Witherow, one of Pittsburgh's iron and steel manufacturers, has recently returned to this country after a five months absence in Great Britain.

To the correspondent of the Commercial Gazette of that city Mr. Witherow stated "that he had returned from England with the contract to erect a steel plant at Middlesborough, Kentucky, that will eclipse anything of the kind in that city. The plant is being built by English capitalists, and is to cost one million dollars. It is to consist of seven open-hearth basic furnaces, with a capacity of thirty tons each, and it will be lighted by one of the finest electric plants in the country. The foundation is now being built, and it is thought the plant will be in operation by October of next." Continuing, Mr. Witherow remarked: "We now have in process of erection in Kentucky two blast furnaces and two coke furnaces which we hope to have in operation inside of four months. English capitalists have seven and a-half million dollars invested in various iron and steel industries in and around Middlesborough."

O. O. H.

VERY few people know anything about the amount of freight transportation a single iron furnace requires. There are five such furnaces in Sheffield, Ala., and the Enterprise of that city has, in a recent publication, shown what demands they must make upon the railroads centering there. These five consume daily 2,500 tons of ore, 1,600 tons of coke (which is equal to 2,240 tons of coal) and 80 tons of limestone. The tonnage of raw material required to keep these furnaces in blast for a year is nearly 1,800,000 tons. To mine this material and put it on the cars for shipment to Sheffield would require the labor of 2,500 men in the mineral region adjacent to Sheffield. At the lowest wages estimate this would compel the disbursement of \$18,750 per week to the miners and other employees. The amount of material required and the products of the furnaces would, loaded on cars, require a continuous freight train 975 miles long, to be drawn by 4,640 ten-wheel Baldwin consolidated locomotives. This enormous business is what has established the reputation of Sheffield as a great iron manufacturing center.

## A Composite Article on Basic City.

[Written for the MANUFACTURERS' RECORD by THOMAS P. GRASY, of the staff; W. E. CHRISTIAN, of The Forum, and JOHN I. GREEN, of the Philadelphia Times.]

Newspaper men are, if successful, close observers. When they give their honest opinions, such opinions are "worth their weight in gold."

It happened to-day that W. E. Christian, of "The Forum," and John I. Green, of the Philadelphia Times, were at Basic City. Both these young men have achieved distinction in their business, and as I came here to make a note on the progress of the place, this "City of the Iron Star," it struck me that a word with them concerning their impressions would be worth printing. So we went together to the office of the Basic City Advance, the model weekly of Virginia, and talked about the whys and wherefores of the future of Basic City.

Said Christian: "The American nose is a very keen and discerning nose. It hunts about for money much after the fashion of a Gordon setter after birds."

"When the American nose, after hunting up and down the valley of Virginia, came to Basic City, it made a dead stand. Why? Because there was game here—Dollars!"

"This was not certain at first, but it has become certain."

"Judge J. M. Quarles has been the hun-

name for it, but just at the moment the 'Spider Web City' occurs to me—not that it catches flies, but because of the ramifications outstretching from its central position.

"Commercial power is here in embryo, and all that is asked is the observation of a business eye."

"The town expands phenomenally. It expands with a military step of forward movement."

"The river with its water-power; the hotel with its suggestion of Arcadia inside and out; the manufactories with their tough fingers willing to grapple with the problem to be solved by incoming population; the valley blooming like a young girl's cheeks and protected by mountains of minerals whose cheeks just now are cheeks of bronze; the management, Judge Quarles, Samuel Forrer, Wise and Blackley; the real estate young men, the steam of all new towns—everything asks you to come this way. Come! Don't expect to buy, but come!"

"See this country and get wrapped up in its beauty and industrial possibilities. Then, probably, you may think that I was not amiss in calling it 'the catching spider-web city' that it is."

"Not that the rest of the world are flies, but that the city is a center of gain."

"Not long ago I saw in one of Talmadge's sermons a reference to Jacob's ladder. He spoke of his Eastern trip and of the ascent of the mortal from the granite of

"In my humble judgment the strong points of Basic City are:

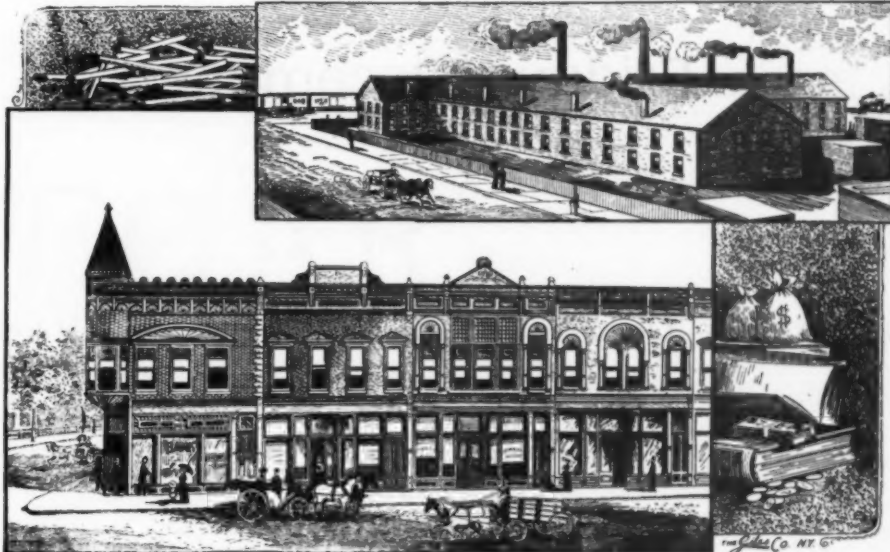
"First, her valuable and varied raw material; and, second, her great transportation facilities."

"Here all kinds of industries are not only possible, but will doubtless prove unusually profitable."

"It is seldom that consumers can be found at the doors of the factories. But most of the things can be sold here on the spot. In sight of the mines there are prosperous planters, and the merchant may take the money made from the fields and purchase the products of the factories. Is it necessary to point out the importance of this condition?"

"But see what distributing facilities there are for the overplus of the manufacturing industries. Two great trunk lines, reaching every section of the nation, running by the doors of all the factories, bidding like determined buyers at an auction sale for this great amount of traffic. Who is benefited? First, the city, and second, the purchaser."

"It has been well said by a sagacious Roman that every man is the architect of his own fortune. The same is true of cities. I have mentioned the possibilities of this place. They are being woven into grand successes by the men who are building the city. They form an organization than which there is no stronger or more progressive one in the South. My friend Christian has referred to this, but I cannot refrain from accentuating what to me is one of the most important things in the unquestioned and unrivalled success of this city. In a word, I believe in Basic City



BASIC CITY BANK.

BASIC CITY MATCH FACTORY.

ter, and he had a gun with him made out of Basic City steel, and he has bagged game right and left.

"The latest acquisition has been the famous school furniture manufactory from Rushville, Ind., which will employ 200 hands."

"The day of description should have been passed for Virginia towns. The situation is one of evolution."

"The point now arrived at is one of the manufacturer, and the management here, according to my idea, is up to that stage, putting little emphasis upon lot sales *per se*."

"It is true there will be a lot sale here—the second one—on the 3d and 4th of December. But this is an incident merely, and in answer only to the demand."

"From what I can hear, the sales will amount to from \$500,000 to \$750,000 in the two days."

"I believe this hearsay. Why? Because one town hereby has lately sold \$500,000 worth of lots in two days. Another has sold \$750,000 worth in the same time."

"Both of them were and are old-field towns. Basic City outclasses both in that. It is in line with Buena Vista. It has industries with pay-rolls for 2,000 men."

"Harry Tinsley has called this town the 'City of the Iron Cross.' The MANUFACTURERS' RECORD has editorially called it the 'City of the Iron Star.' I have no

earth to the throne of God. He spoke of the climb over the ladder of the clouds, thence onward and upward over the ladder of the stars toward perfection."

"Virginia has had her cloud-days, and her brave sons have climbed already the ladder of the clouds. Now, hand in hand with their Northern partners they are climbing the ladder of the stars."

"The promised land is almost—not quite—in view, and Basic City is a steel rung in this ladder of the stars."

Mr. John I. Green, a South Carolina boy who has made his way in the world on merit alone, is one of the shrewdest discerners of industrial possibilities in the South. For the last few months he has been traveling in Virginia, and I consider him one of the most fair and honest as well as sagacious of Southern industrial reporters. Here is the argument he makes in support of Basic City's claims as an assured industrial city:

"There are, perhaps, in the frozen regions of British America vast treasures whose existence is known to the world. There is in Central Africa, in the islands of the South Sea, and in the fastnesses of Siberia untold wealth which was discovered long years ago. But all of this is but a mirage to the civilized world. Why? Because it is inaccessible."

because of its resources, its transportation facilities and its honest and well-directed management."

The foregoing are the views of Messrs. Christian and Green on Basic City. For my own part, I consider that the pay-roll will ultimately tell the tale. The industries now in course of construction here will give employment to at least two thousand men. That means a population of at least ten thousand souls. Of course, as I have time and again remarked, the wonderfully healthy climate and the lovely environment and the great lithia spring will do almost as much in adding to Basic's population as the industries and the three railroads.

However valuable expert opinion may be, public opinion is the greatest factor in the making or unmaking of new towns. There is not a man in this great valley of the Shenandoah but who believes in Basic City. Then, also, as Mr. Christian has said, the management is extraordinary. There is no such word as "halt" in the lexicon of Judge Quarles. He started in to win and he is winning, and he will keep on winning.

There is going to be a Thanksgiving banquet on Thursday night at the new Brandon Hotel. Half the beauty and brains of Virginia will be there. This hotel will be the finest in Virginia. When the great land sale occurs on December 3 and 4, the bidders will find a very different state of things from that which they have been tortured by some of the new towns in the South. The cuisine will be admirable, and there will be plenty of room for all comers.

**NO BOOM.**

**NO BOOM.**

**BUT KEEP YOUR  ON**

**Mineral City, Virginia.**

First Auction Sale of **300** Choice Lots

\* Friday, December 5th, 1890. \*

*Terms of Sale—One-fourth Cash, Balance in Six, Twelve and Eighteen Months.*

Stock of Company \$200,000, Shares \$100 each, was Sold for Fifty Cents on the Dollar. When Paid up the Company will Receive it at Par for Deferred Payments, but this Privilege will Last for Ten Days After Sale Only.

QUARLES & McCURDY, of Richmond, Va., Auctioneers.

\* RAILROAD FARE REFUNDED TO ALL PURCHASERS. \*

Industries Secured over 1,500 hands and others being arranged for.

The Values are Natural and Not Speculative.



Population 2,500.

Bank, Schools, Churches, Hotel, Water  
Works, Splendid Residences, Excellent Society.

Old name of town, and present name of the Postoffice, is Jacksonville, the County Seat of Calhoun,  
one of the Richest Mineral and Agricultural Counties in the State.

*MANY LARGE INDUSTRIES SOON TO BE LOCATED.*

# TREDEGAR

**STEEL WORKS** will include three Furnaces, Rolling Mills, &c., to produce 300 tons of Steel daily,  
covering every line of manufacture from the ore to the finished Steel. The entire plant, including  
furnaces, buildings machinery, &c., is under contract. Will employ 3,100 hands.

For particulars address GOLDSMITH B. WEST, General Manager JACKSONVILLE MINING & MANU-  
FACTURING COMPANY, Tredegar (Present Postoffice, Jacksonville), Alabama.

## Alabama.

# Cedar Grove Industrial Company.

Chartered Under the Laws of West Virginia.

CAPITAL - - - \$500,000.

## OFFICERS:

ROBERT A. WOOLDRIDGE, PRESIDENT.

ELLIOTT BARD, TREASURER.

CHAS. C. TOMPKINS, VICE-PRESIDENT.

CHAS. H. GRASTY, SECRETARY.

## DIRECTORS:

ROBERT A. WOOLDRIDGE, R. A. Wooldridge &amp; Co., Importers and Manufacturers of Fertilizers, Baltimore.

CHAS. C. TOMPKINS, Secretary West Salem Land Co., Salem, Va.

ELLIOTT BARD, Bangs, Bard &amp; Co., Wholesale Boots and Shoes, Baltimore.

CHAS. H. GRASTY, Manufacturers' Record, Baltimore.

WARREN C. BIRD, J. Edward Bird &amp; Co., Wholesale and Retail Dry Goods, Baltimore.

JAMES THURSTON, Fertilizer Materials, Storage, &amp;c., Baltimore.

GEORGE ALLEN, President West Salem Land Co., Salem, Va.

DR. JAMES BOSLEY, Physician, School Commissioner 14th Ward, Baltimore.

GEORGE W. KIRWAN, Gents' Furnishings, Baltimore.

## ATTORNEYS:

WATTS &amp; ASHBY, CHARLESTON, W. VA.

RHODES &amp; RHODES, BALTIMORE, MD.

**T**HIS Company holds contracts of purchase for about 165 acres of town-site property, including water front, and 1,300 acres of coal land immediately adjacent, where the present town of Cedar Grove, Kanawha County, W. Va., is now located, at the Junction of Kelley's Creek with the Kanawha River, about midway between Kanawha Falls and Charleston.

## POSITION AND TRANSPORTATION.

Cedar Grove, which this company acquires, is the controlling point and sole outlet of the Kelley Creek basin, the area of which is 64 square miles. This is the backbone of the great Kanawha coal field, and is conservatively estimated to contain several billion tons of coal, all of which must be tributary to Cedar Grove, which, with its riparian rights, and the ample facilities which this company will provide, will be in a position to materialize its extraordinary natural advantages. The valley of Kelley's Creek, which extends through the back country, affords the only means of getting the coal out to transportation, owing to the mountainous country, and this company owns the level land at the mouth of the creek, where nature has made one of the few town-sites to be found on the north side of the Kanawha between the head of navigation and Charleston, the mountain sides uniformly coming down to the river and leaving scarcely enough room for a railroad track. At Cedar Grove, however, the creek has made a valley wide enough for a town of no mean proportions.

The company owns *two miles of water front*, from which the entire output of a rich area, containing many millions of dollars worth of coal, must be loaded on barges for shipment to market. This advantage alone makes the capital stock of the company seem insignificant. The question as to how our riparian rights shall be used—whether they shall be sold at from \$3,000 to \$5,000 an acre, the present market value, or held by the company and tipples and other facilities erected and operated, thus affording a large and permanent revenue, is one for the discussion and decision of the company after it is fully organized. The transportation feature is very satisfactory. Our water front is on a deep pool, between two locks in the river, thus giving ample harbor room, with all-the-year-around navigation to Cincinnati, Louisville and the Ohio and Mississippi Valley. Cedar Grove enjoys the wonderfully low rate of 2 mills per ton per mile, and the tariffs of the Chesapeake & Ohio just across the river are, it is claimed, the lowest in the United States. The Kanawha & Michigan Railroad is within a few miles of Cedar Grove, and building toward it on the north side of the river. It will thus be seen that the company will have rare transportation advantages.

## TOWN-SITE.

Included in the company's property is the town-site of 165 acres of land admirably adapted for residence and business purposes. The smallness of this area compared with the site of many new towns is a decided advantage, as it compels a concentration of all business in a more limited space, and makes it impossible to have a town scattered over ten times as much ground as will be needed for years to come. On this account it greatly enhances the value of every lot on the property. There will be about 1,000 lots, which, at the very conservative estimate of \$300 each, would yield \$300,000.

## COAL LANDS.

Our 1,300 acres of coal lands are estimated to contain in the several veins an aggregate of over 60,000 tons per acre. There are seven horizontal, workable veins, all of which have been worked at one or more points. The coal has an established reputation for steam and domestic uses. There is an abundance of good coking coal. All the coals are mined at a minimum of expense and under almost ideally favorable conditions. The coal property, it is believed, can easily be made to pay a good profit on the entire capital stock, as owing to its superior quality, there is a ready market for all that can be mined. One vein of this coal is preferred by large manufacturing concerns over the best grades of Pennsylvania steam coals; and another vein of this coal is pronounced by the gas works of a large Western city to be the best gas coal that they have ever used.

## PRESENT IMPROVEMENTS, CLAY, STONE, &amp;C.

The improvements on the coal property consist of a large double, two-story brick store; cost about \$6,000. From 40 to 45 miners' houses, regarded as

among the best miners' houses in the valley. The railroads, tipples, &c., are in good order. The output of one vein from May, 1888, to May, 1889, was in excess of two million bushels. On the coal property proper there is about half a mile of river front, and on the other property about a mile and a half, with two miles of railroad frontage on the Kanawha & Michigan road, which is to pass through the place.

On the mill property there is a three-story roller flour mill with a five-story elevator, recently refitted with improved machinery at a cost of about \$17,000. The mill is within 50 feet of the railroad on the one side and 150 feet of the Kanawha river on the other side. There are one good dwelling house for the miller, two good tenement houses for mill hands, a cooper shop, an inclined plane to the river, and all appurtenances for the running of a flour and grist mill.

On the coal property there are three blacksmith shops, necessary for the coal mine.

Near the drum house at the mouth of the mine is a large 30-horse power engine, with fans attached for supplying air for ventilation of the mine.

In addition to the coal on the 400 acres, bought from H. P. Tompkins, there is a large vein of white sandstone immediately on the river front, which is very valuable for building purposes, easily cut, and hardens when exposed to atmospheric influences. From actual tests made in Washington city by the government engineers, this sandstone stood a greater degree of hydraulic pressure without crushing than any sandstone that had ever been experimented upon by the government officials.

A clay for manufacturing brick found upon the bottom land is unsurpassed by any brick clay found in the Kanawha valley. The depth of this clay is as great as 20 feet, commencing within a foot and a half of the surface.

A clay found in the bottom of the Cedar Grove vein is in every respect suitable for fire-brick and tiling, it having been thoroughly tested. This is produced without cost, as in operating the mine it can be taken out without adding to the expense of operation.

*Thus, the company will own at the start—of revenue-producing assets—a coal property in profitable operation, a large flour mill doing an excellent business and having an established trade, a \$6,000 brick store building and forty or fifty miners' houses in good condition. In addition to this will be the town-site of 165 acres, 50 to 100 villa lots on the hillsides, the 1,300 acres of coal land and the riparian rights of two miles of water front.*

## SUBSCRIPTIONS TO THE CAPITAL STOCK.

There will be \$400,000 of the capital stock available for subscription, or 40,000 shares at \$10 each. Assessments will be as follows: \$1.25 per share November 15, 1890, \$1.25 January 15, 1891, \$1.25 per share June 15. There will then be no further assessments until Nov. 1, 1891, and from that time on, it is guaranteed that should it be found necessary to make other assessments they shall not exceed 20% per annum on the stock subscribed.

The policy of the company will be to limit assessments to actual necessities in meeting deferred payments and in developing the property. It is possible that the June assessment referred to will not be called for, as the sale of lots which will take place in the spring is likely to realize sufficient money to take care of deferred payments and provide ample funds for developments. The company, however, wishes to put itself in position to carry out all its plans, regardless of the sale of lots. It is a reasonable expectation that the subscriber will never be called on to pay any assessments beyond the first three.

Subscriptions must be made in writing, must state the name and address of the subscriber, and the amount subscribed. No subscription will be accepted for more than 1,000 shares for any one subscriber. For further information call on or address

ROBERT A. WOOLDRIDGE, President,  
CHAS. H. GRASTY, Secretary,  
ELLIOTT BARD, Treasurer,  
Or CHAS. C. TOMPKINS, Vice-President, } Baltimore.  
Salem, Va.

Principal Office, - 212 BUCHANAN'S WHARF, - Baltimore, Md.



# KIMBALL.

MARION COUNTY,

TENNESSEE.

## KIMBALL TOWN COMPANY.

### DIRECTORS.

HON. LOGAN H. ROOTS, President of First National Bank, Little Rock.  
CHARLES P. RICHARDSON, Capitalist, Chattanooga.  
J. R. STEVENS, President First National Bank, Huntsville, Ala.  
A. J. MORISON, Capitalist, London, England.  
J. H. BRYANT, President Seattle Coal & Iron Co., New York.  
GEO. COOK, President Hallet & Davis Piano Co., Boston, Mass.

HON. H. L. COCHRAN, Judge Probate Court, Fort Payne, Ala.  
H. I. KIMBALL, Atlanta, Ga.

### OFFICERS.

President, HON. LOGAN H. ROOTS.  
Vice-President, C. P. RICHARDSON.  
Second Vice-President and Managing Director, H. I. KIMBALL.  
Treasurer, J. H. BRYANT.  
Assistant Treasurer, ED. E. RICHARDSON.  
Secretary, W. E. DONALDSON.  
Assistant Secretary, W. BROOKS COVELL.

### ATTORNEYS.

W. E. DONALDSON, Kimball.  
SHEPHERD, WATKINS & BATES, Chattanooga.

### ENGINEERS.

Landscape Engineer, NATHAN G. BARRET.  
Resident Engineer, W. J. KELLY.  
Sewerage and Electrical Engineers, MIER, HARTFORD & MITCHELL.

Hon. SAM'L H. BUCK, Gen. Superintendent.

### OFFICES.

Richardson Building, Chattanooga.  
Union Trust Building, 80 Broadway, New York.  
Company's Building, Kimball, Tenn.

H. I. KIMBALL,

Vice-Prest. & Managing Director.

### Kimball Offers

Solid, practical inducements to manufacturers. First-class enterprises under good management will be guaranteed, one-half the cash required. Local taxes will be remitted for a term of years. Lowest freights and cheapest raw materials will be secured.

### Auxiliary Companies

will be organized by the parent corporation for developing the wealth of the Sequachee Valley and for supplying the city with heat, light, water, power and transportation.

### A Mammoth Industrial Building

will be erected by the Kimball Town Company, which will have power, light and heat, that will be supplied to manufacturers on the most liberal terms.

Ample provision made for religious and educational institutions.

### No Further Auction Sales

this year and no private sales of the corporation's lots except to those who will contract to build immediately on plans approved by the management.

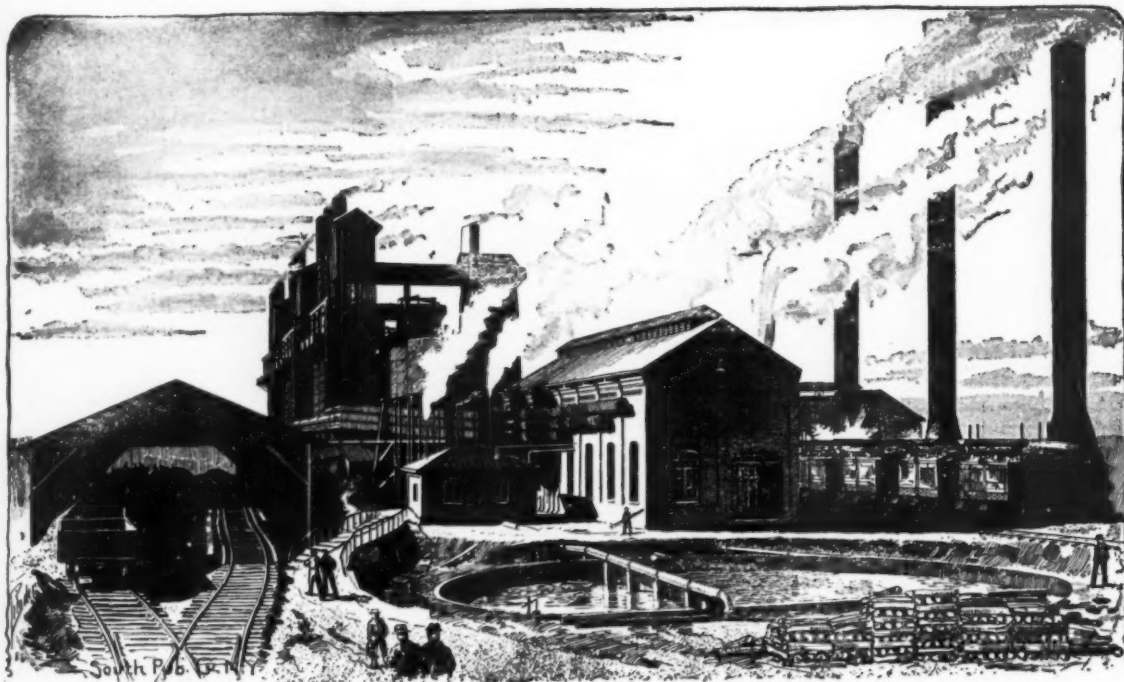
ALL CORRESPONDENCE SHOULD BE ADDRESSED TO

H. I. KIMBALL, Managing Director,

CHATTANOOGA, TENN.

# SHEFFIELD, ALA.

## THE SUPERB.



At the Headwaters of Deep Navigation on the Tennessee River, the Hudson of the South.

The Largest Producer of HIGH-GRADE Pig Iron of any City in the Entire Industrial South.

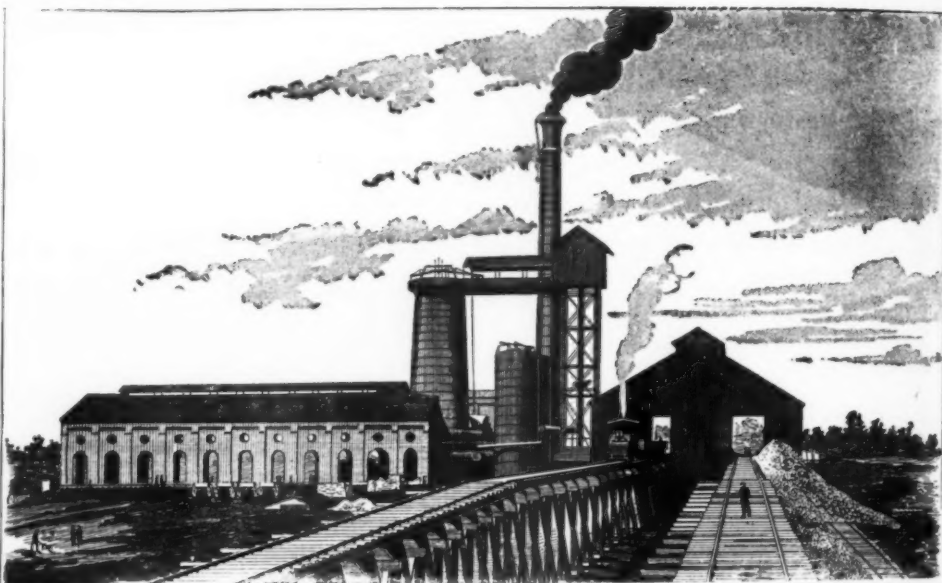
The only point in the South that has or can ship pig iron to the cities on the Mississippi, Missouri and Ohio rivers by boat or barge without rehandling. This last shipment of 5,000 tons of Pig Iron to Pittsburgh, Pa., by barge was made at a saving of \$2.65 per ton over what any iron-producing city of the South has done or can do to-day.

Five Large Blast Furnaces

Capacity 750 tons pig iron per day.

The following are among the corporate and private enterprises that belong to Sheffield:

The Sheffield Land, Iron & Coal Co., capital \$1,000,000.  
The Sheffield & Birmingham Coal, Iron & Railroad Co., capital \$1,000,000; the owners of three 150-ton blast furnaces.  
The Birm., Sheffield & Tenn. River Railway Co., capital \$5,000,000.  
The Hattie Ensley Furnace, capital \$200,000.  
The Lady Ensley Furnace Co., capital \$200,000.  
The Electric Light & Gas Fuel Works, \$50,000.  
The Sheffield Ice Co., capital \$25,000.  
The Sheffield Manufacturing & Constructing Co., \$30,000.  
The Sheffield Contracting Co., \$50,000.  
The Eureka Brick & Lumber Co., \$30,000.  
The Howard Brick Co.  
The Sheffield Bakery & Bottling Works.  
The Sheffield Mineral Paint Co., capital \$50,000.  
The Sheffield Agricultural Works, capital \$50,000.  
The Sheffield Cotton Compress Co., \$50,000.  
Millan Brothers, Steam Laundry.  
Enterprise Publishing Co.  
Water Works, already expended, \$30,000.  
Sheffield Street Railway Co., capital \$100,000.  
Cleveland Hotel Co., capital \$50,000.  
Sheffield Hotel Co., capital \$120,000.  
Bank of Commerce, capital \$150,000.  
East Sheffield Land Co., capital \$500,000.  
Hull & Keller's Fern Quarries.  
Mobile Real Estate Co., capital \$50,000.  
Sheffield Real Estate Co., capital \$50,000.  
Sheffield & Mobile Improvement Co., capital \$100,000.  
Sheffield Stove Works.  
Henderson Milling Co., capital \$100,000.  
Globe Iron & Brass Works, capital \$10,000.  
Standard Machine Shop & Foundry, capital \$50,000.  
Owen Pink Mixture Co., capital \$100,000.  
Bell Telephone & Telegraph Co.  
Foulds' Shoe Factory, capital \$20,000.  
Enterprise Wood Working Co., capital \$30,000.  
Buchanan Straw Goods Factory, \$25,000.  
The Sheffield Harness & Saddlery Co., capital \$20,000.  
Principal Shops of the Sheffield & Birmingham Railroad.  
Principal Shops Memphis & Charleston Railroad, now being built.



Aside from the foregoing the following are in course of construction and may be considered positive: Principal Shops of the Memphis & Charleston Railroad; Principal shops of the Nashville, Florence & Sheffield Division of the Louisville & Nashville Railroad. Reasonably certain to be secured in the near future are the following, in regard to which negotiations are pending: A Rolling Mill; Large Machine Shop; A Cotton Mill.

## ALABAMA'S IRON CITY.

The Superb Location at the head of navigation on the Tennessee River, commanding the outlet to immense fields of IRON ORE and COAL and magnificent tracts of the finest Timber. Has already attracted to the spot where three years ago in a cotton field her projectors set the stakes of a new city, capital and people, unequalled in amount and number, circumstances considered, by any of the so-called new cities of the South.

With eight Church Organizations, two Free Public Schools, Postoffice, Telegraph and Express offices and abundant facilities of transportation by river and rail. It has every advantage as a residence city that can be desired.

Good Water; Drainage Excellent; Health and Climate Unsurpassed. Free Public Schools and Churches. Splendid opening for men of push and energy. No better point for profitable investment. No "Old Foggy" element here.

### Sites for Manufacturing Enterprises

And for Free Public Schools and Churches

Donated by the Sheffield Land, Iron & Coal Company.

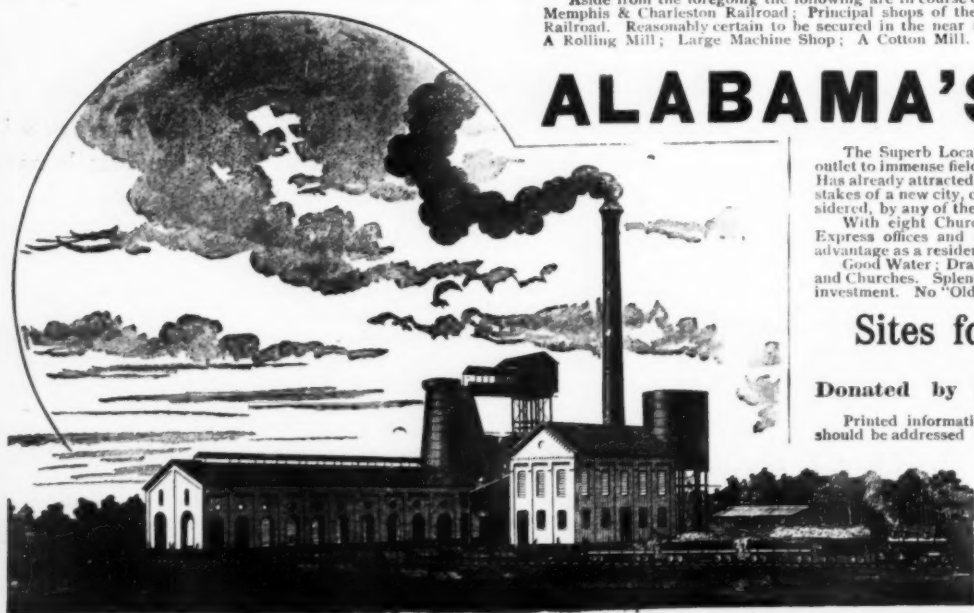
Printed information furnished on request. Correspondence solicited. Communications should be addressed

**W. L. CHAMBERS,**

Vice-President and Manager.

Sheffield Land, Iron & Coal Company,

SHEFFIELD, ALABAMA





# LAREDO, TEXAS.

## The Gateway to and from the Republic of Mexico

Is nature's grand outlet for the manufactured products of the United States and nature's grand inlet for the mineral and raw products of Mexico. For the cheap delivery of the raw material necessary for the successful operation of iron and all textile industries, Laredo holds a position unsurpassed, every material being found in the immediate neighborhood. The very foundations of the city are upon inexhaustible coal beds, now being rapidly developed. A glance at the map will show that there are no large cities within hundreds of miles of Laredo, and her favorable geographical location, being from 600 to 800 miles nearer the trade centers of both republics than any other frontier port, stamps her as the commercial entrepot between the United States and Mexico.

Laredo is becoming a most important manufacturing point,

having the following industries already located and in operation:

Woolen Mill.

Wool Scouring Mill.

Tannery.

Boot and Shoe Factory.

Ore Concentrating Works.

Ore Sampling Works.

Cotton Gin and Milling Works.

Mineral Water Bottling Works.

Four Ice Factories.

General Car and Machine Shops of the Mexican National Railroad, the largest west of the Mississippi.

Three Large Brick-yards and several smaller establishments.

A large Cotton Factory is now being erected by a New England syndicate.

Laredo Offers to the Capitalist, Merchant, Manufacturer and Mechanic Opportunities for Investment, Business or Manufacturing such as no other City in the Southwest can offer.

The city is well supplied with railroad facilities and hotel accommodations, has Holly system of water works, two electric-light companies and one of the best equipped electric motor street railways in the United States.

### Population.

1886.....	3,000
1888.....	6,000
1889.....	12,000

### Imports and Exports.

1888.....	\$ 3,000,000
1889.....	10,543,000

*For Maps Pamphlets, Bird's Eye Views and Reliable Information of Laredo, address*

# THE LAREDO IMPROVEMENT CO.

# FOR SUCH INDUSTRIES AS

COTTON MILLS,  
WOOLEN MILLS,  
TANNERIES,  
BOOT AND SHOE FACTORIES,  
HARNESS AND SADDLE FACTORIES,  
FURNITURE FACTORIES,  
CARRIAGE AND WAGON FACTORIES,  
FLOUR MILLS,  
GRIST MILLS,  
CRACKER FACTORIES,  
CANNING FACTORIES,  
COTTON-SEED OIL MILLS,

# DALLAS, TEX.

Is equal to any locality  
in America in its  
combined advantages of  
**CHEAP AND**

**ABUNDANT**  
**RAW MATERIAL**  
**READY,**

**PROFITABLE**  
**AND EXPANDING**  
**MARKET.**

**DISTRIBUTING FACILITIES,**  
**ELIGIBLE SITES,**  
**GOOD CLIMATE.**

Any worthy industries  
will be aided liberally by the

## DALLAS MANUFACTURERS' AID & IMPROVEMENT CO.

711 Main Street, Dallas, Texas.

THE PLACE FOR FACTORIES.

## THE ROANE IRON CO.

WILL BUILD UP A

★ **LARGE MANUFACTURING CITY** ★

— AT —

## ROCKWOOD, TENN.

AND IS PREPARED TO OFFER SUBSTANTIAL INDUCEMENTS TO MANUFACTURERS.

— AS TO RESPONSIBILITY OF THIS COMPANY, PARTIES ARE REFERRED TO EITHER DUNN OR BRADSTREET. —

FOR PARTICULARS ADDRESS

ROANE IRON CO., Rockwood, Tenn



# LURAY, Virginia.

2,500 Acres Town Lands,

8,000 Acres Mineral Lands,

Luray Inn and Caverns.

## The Valley Land & Improvement Company,

Capital Stock, \$2,000,000.

Luray, Page County, Va.

### DIRECTORS.

D. F. KAGEY, Luray, Va., President.

G. C. MARSHALL, Uniontown, Pa., Vice-President and General Manager.

T. E. McCORKLE, Lexington, Va.

DR. W. L. HUDSON, Luray, Va.

G. K. MULLIN, Philadelphia, Pa.

DR. A. M. HENKEL, Staunton, Va.

J. W. MILLER, Mount Jackson, Va.

### EXECUTIVE COMMITTEE.

D. F. KAGEY,

G. C. MARSHALL,

T. E. McCORKLE,

G. K. MULLIN.

Secretary, T. E. McCORKLE.

Treasurer, H. M. KERR, Kagey & Co.'s Bank.

Attorney, T. E. McCORKLE.

Associate Counsel, H. J. SMOOT,

Manager of Inn and Caverns, G. K. MULLIN.

Bankers, D. F. KAGEY & CO., Luray, Va.

### CHARTER, PROPERTIES, &c.

The Valley Land & Improvement Company has been organized under the most liberal charter ever granted by the State of Virginia.

2,500 acres for manufacturing purposes and building sites. These lands are in and around the hotel, caverns and town of Luray on an undulating plateau, protected on either side by the Massanutten Mountain and the Blue Ridge Mountains.

8,000 acres of the best mineral properties in Virginia, consisting of iron, manganese and other valuable minerals which have stood the test of examination by the ablest geologists of the country.

The company owns the celebrated Luray Inn and the Luray Caverns.

Page County stands at the head of the list as having a greater variety of minerals and richer than any other county so far as known in the State.

In addition we have the finest kind and a great variety of virgin timber and fire-clays, slates, beautiful marbles, ochres, umber and mineral paints.

### LOCATION, RAILROADS, &c.

Luray, now a town of about 2,500, is the county seat of Page county, has five churches, splendid schools, fine stores, three newspapers, flouring mill, cigar factory, &c.

The town is on the Shenandoah Valley Railroad, of the Norfolk & Western system, and is the best location in Virginia, four hours from tidewater.

Two new lines projected connecting closely with Baltimore and Washington and insuring cheap freights.

Luray has largest tannery in the world, annual pay roll over \$350,000.

Exhaustible water supply, agricultural resources, charming climate.

Fine natural sites for furnaces and manufactories of all kinds fronting the railroad, reserved by the company, which by donations of land and in every possible way will promote Luray's manufacturing interests.

### LOTS, CAPITAL STOCK, &c.

Capital stock \$2,000,000, shares \$100.

One million of stock reserved in treasury for betterment.

One million now offered for sale.

Books open at the bank of D. F. Kagey & Co., Luray, Va.

The company reserves the right to close the books any time before the full amount of the one million is sold.

Twenty per cent. must be paid on subscription, 30 per cent in 30 days, the balance equally in six and twelve months.

When half of the subscription is paid in subscribers have the right to use their stock in payment on lot purchases.

The company feels safe in saying that with the magnificent property in hand, the Inn and Caverns, it will be enabled when thoroughly under way to pay four or five per cent. dividend on the stock sold, independent of lots and mineral lands.

The company already owns an electric plant which will be considerably enlarged.

Complete system of water works and many other improvements projected. Investors are referred to Mr. J. W. Wheeler, Cashier Drivers and Mechanics' National Bank, Baltimore, Md., for full information. H. C. Turnbull, Jr., real estate agent, 52 Lexington street, will receive subscriptions of stock in Baltimore.

The fullest investigation invited.

THE VALLEY LAND & IMPROVEMENT COMPANY, LURAY, PAGE COUNTY, VA.

# DENISON, TEXAS.

The Queen City of the Southwest

AND

## GATEWAY TO THE GREAT STATE OF TEXAS.

The City of Denison Presents the Finest Opportunity of any City in the Southwest for the Investment of Capital in Large or Small Sums.

**D**ENISON is situated in Northeastern Texas near inexhaustible beds of Coal and Iron, surrounded by the finest Fruit Lands in the world, and adjoining the INDIAN TERRITORY, which, in the nature of things, must in a few years be opened to settlement.

The city is regularly and beautifully laid out. Railroads run from it in four different directions. The Missouri, Kansas & Texas alone does an enormous business, having 54 miles of switch track in Denison, employing 500 skilled workmen and disbursing \$150,000 a month in wages.

The Houston & Texas Central Railway has its northern terminus here. The Choctaw Coal & Railway Co. have recently completed a survey of a line from Hartshorn, I. T. (a junction point with the main line of their road) to this city. The Denison, Sherman & Dallas Railway is now being constructed from here to Sherman, and four other roads have located lines to this point, with very good prospects of building.

The first public school in the State was established here, and the city's elegant two and three-story brick school buildings, surrounded by attractive grounds, are well arranged for the use of the white and colored children. Its schools are in session ten months in each year. We have sixteen church societies, seven of which are colored.

The city is well supplied with pure water from its numerous private wells—dug in the ground—and its first-class system of water works. Rate of taxation low.

The city has six miles of street railway, and a seven-mile-motor railway; has an electric-light and gas company and a telephone plant. It has an influential New England colony, and counts among its citizens people from every State in the Union.

The erection of a large hotel to cost \$125,000, and a steel plant with \$2,000,000 capital is contemplated.

The population of the city by census of 1890 shows a gain of 170 per cent. in ten years.

35,000 bales of cotton were shipped from Denison in 1890, and many carloads of fruit and early vegetables are shipped annually.

The Denison Canning Co., capitalized at \$100,000, has one of the largest canning factories in the country.

The Denison Cotton Manufacturing Co.'s 25,000-spindle mill, to cost \$500,000 and to employ 650 hands, will be completed by January 1st, 1891.

The climate of Denison is magnificent, situated nearly 800 feet above sea level. In summer it is warm, but far cooler than many cities farther North, and from 6 P. M. until after sunrise it is always cool. The city is very healthy.

The capacity of the ice factory is now increased from a daily output of 30 to 50 tons.

The Denison Land & Investment Co. is prepared to give every reasonable encouragement to manufacturers, and solicit correspondence from such manufacturers as contemplate coming into the Southwest to locate.

Address all communications to

### THE DENISON LAND & INVESTMENT CO.

Paid-Up Capital, \$1,200,000.

DENISON, TEXAS.

#### OFFICERS.

W. P. RICE, President.

MILTON H. FRENCH, Vice-President.

B. J. DERBY, General Manager.

ARTHUR L. BERRY, Secretary and Treasurer.

#### DIRECTORS.

W. P. RICE, Kansas City, Mo.

J. M. FORD, Kansas City, Mo.

SAM STAR, Denison, Tex.

MILTON H. FRENCH, Thomaston, Me.

JOS. B. LINCOLN, Boston, Mass.

B. J. DERBY, Burlington, Vt.

ARTHUR L. BERRY, Denison, Tex.

M. V. B. CHASE, Augusta, Me.

B. C. MURRAY, Denison, Tex.



Write to the



*The  
Richest.*

*Best  
Managed.*

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*Greatest  
Resources.*

*Unequalled  
Opportunities.*

Coal & Iron Co.

CARDIFF, ROANE CO, TENN.

# SAVERNAKE,

Rockbridge County,

VIRGINIA.

—\* The Latest and Most Attractive Addition to Buena Vista. \*

The Phenomenal Success of which New Industrial City has made Necessary Future Extensions on the same line of Valuable Minerals,

**WITH UNRIVALLED FACILITIES FOR TRANSPORTATION.**

SAVERNAKE adjoins Buena Vista on the southwest; fronts on Shenandoah Valley Railroad and on James River Division of the Chesapeake & Ohio Railway.

High Grade Manganese and Iron Ores to Steel and Iron Trades.

\* **SAFETY AND PROFIT TO INVESTORS.** \*

Healthy and Picturesque HOMES at Moderate Prices to Lot Buyers.

The Advantages of an Established City, with Churches, Schools and Factories adjoining. Employment for Mechanics and Laborers. Active Trade to the Storekeeper. Consuming Industries, with a Ready Market for product to the Manufacturer. Avenues connecting with those of Buena Vista, to Insure Convenient Access, through Street Car Lines, already Projected from that City.

## SAVERNAKE

Is laid out in conveniently-sized lots to suit all in Prices and Location.

RESIDENCE LOTS. BUSINESS LOTS. MANUFACTURING SITES.

THE INDUSTRIES already secured, and which will be further announced weekly in the MANUFACTURERS' RECORD, guarantee rapid profits, free from speculative features, to all purchasers.

The LOCH LAIRD ESTATE & MINERAL CO., Limited,  
LONDON, ENGLAND,

Of whose property Savernake forms a portion, having already sold a considerable number of lots to investors in London, and being in negotiation with both English and American capitalists for further sales, offer lots in Savernake to the American public, confident that their location will render values at once apparent, and guarantee every effort to sustain and foster this enterprise, both in the United States and England. Maps of Savernake and all particulars of information may be obtained upon application to

## Loch Laird Estate & Mineral Co., Limited,

THOMAS DUNLAP, MANAGING DIRECTOR.

Postoffice Address—Triford, Rockbridge Co., Va.

**SAVERNAKE, VIRGINIA.**

Railroad Station for both Shenandoah Valley Railroad and Chesapeake & Ohio Railway, Loch Laird Station, Va.



# SAVERNAKE,

Rockbridge County,

Virginia.

THE PROPERTY OF THE

## Loch Laird Estate & Mineral Co., Limited,

of which Savernake is a part, is in active development, having extremely rich and valuable deposits of

*MANGANESE, IRON ORE,*

*CEMENT ROCK, BROWN STONE, BRICK AND FIRE-CLAY,  
BUILDING STONE, KAOLIN.*

Arrangements have been concluded, or are in course of negotiation with the following

### INDUSTRIES:

Tin-Plate Works, product 3,500 boxes I. C. Tin-Plate weekly.  
Ferro-Manganese Furnace.  
Ornamental Brick and Tile Works.  
Slate Brick Works—patented process.  
Manganese Grinding Works.  
Cement Kilns and Mill.  
Planing Mill and Woodworking Mill.  
Iron Foundry and Machine Shop.

### WITH THESE ARE PROJECTED:

An Eighty-Ton Blast Furnace.  
A Coke Plant.  
An Open Hearth Steel Plant, with Plate Mill and Galvanizing Works.

In addition to the foregoing, the following industries have been offered during the past week:

AN IRON BRIDGE WORKS, employing 600 hands.  
LOCK FACTORY, HARDWARE FACTORY and a very large  
MALLEABLE IRON WORKS from New England.

## SALE OF LOTS.

The favor with which Savernake has been received has enabled the company to announce the sale to a syndicate of

### SEVEN HUNDRED LOTS,

Equitably distributed throughout the town plot. These lots compose the most

### Desirable Residence and Building Lots,

with superior location and magnificent views.

RESIDENCE LOTS, 50x125 feet, 50x175, 50x200 and of larger size when desired.

## BUSINESS LOTS:

The map of Savernake contains

### TEN BLOCKS OF BUSINESS LOTS.

Fronting on the Industrial Reservation and on Savernake, Victoria and Brudenell Avenues. Many of these have been sold, and at present prices offer a most desirable opportunity for profitable investment.

ESPECIAL RESERVATION OF LOTS FOR MECHANICS AND WORKINGMEN  
desiring to build houses. Equitable prices and  
easy terms of payments.

## The Goshen Land & Improvement Company

OF GOSHEN, VIRGINIA.

Goshen, the Gateway connecting the Virginias.

The Coming Railroad Center.

Goshen fulfilling prophecy in becoming the Great Iron Manufacturing Center.

Surrounded by the wonderful Mineral Springs Belt, where thousands from all over the land congregate during the Summer. Great Industries located here;

More to follow

Car Works, to manufacture Passenger, Freight and Electric Cars, are now being built.

Works covering 15 acres of ground.

Large Rolling Mill under construction.

Keystone Machine Company's building nearly completed.

Woodcock Iron Works building now under construction.

The Palace Hotel, the finest building in Virginia, under contract to be completed July 1st, 1891.

Industries already secured and under construction guarantees the success of Goshen as a Manufacturing Center.



# The Middlesborough Town Company,

ALEX. A. ARTHUR, President.

JOHN B. CARY, Sec. and Treas.

Fourteen months ago the population of the present site of Middlesborough, Ky., did not exceed 50; to-day the town has a population exceeding 6,000. It is a conservative estimate to say that in three years 50,000 people will be living here. The amount of capital now invested in the development of Middlesborough reaches

## \$26,500,000.

The history of the world does not show an instance of such amazing development in so short a time and, on so sure and solid and permanent a foundation.

The developments here are in the hands of English capitalists, whose purpose it is to create around Cumberland Gap the greatest coal and iron development the world has ever known.

## Statement of Development to September 1, 1890.

	Number.	Value.
Business houses erected and occupied.....	83	\$ 285,000
Business houses being erected.....	41	441,500
Business houses contracted for, to be completed by Jan. 1, 1891. 31		176,500
Residences erected and occupied.....	280	417,250
Residences being erected.....	97	228,450
Residences contracted for, to be completed by January 1, 1891. 72		161,450
Industrial plants in operation.....	16	289,500
Industrial plants building.....	27	2,872,500
Industrial plants contracted for.....	14	750,000
Hotels built and occupied.....	7	132,000
Hotels being erected (including Harrogate and Cumberland Gap).....	6	850,000
Hotels contracted for.....	3	45,000
Churches completed.....	5	22,500
Churches being erected.....	3	18,000

### PUBLIC BUILDINGS.

Schoolhouse.....	3,500
Public library and exhibition hall.....	25,000
City hall.....	10,000

The above statement includes only cost of construction, and does not include working capital or value of properties or stock.

### BANKS.

	Capital.	Deposits.
Coal & Iron Bank.....	\$1,000,000	\$430,000
First National Bank (to be increased to \$100,000).....	50,000	160,000
People's Bank.....	500,000	120,000
Bank of Middlesborough (to be increased to \$100,000)....	50,000	60,000
Bank of Cumberland Gap.....	50,000	17,000
Bank of Claiborne.....	25,000	10,000
Total.....	\$1,675,000	\$797,000

### POPULATION.

The population of Middlesborough was fifty souls in May, 1889. In August, 1890, about 6,200. Including the plants that are now completed and those that are in course of construction, which, by contract, are to be completed inside of fifteen months, Middlesborough will have a working population, composed of skilled and unskilled labor, of 7,688 men, which, according to all acknowledged rules, will give the city in eighteen months nearly 40,000 inhabitants.

### NOTE.

Two years ago the nearest railroad was at Corbin, on the Louisville & Nashville System. To-day there are in Middlesborough the Louisville & Nashville, the Knoxville, Cumberland Gap & Louisville Railroads, the Belt Line and, by traffic arrangements, the Norfolk & Western and the East Tennessee, Virginia & Georgia Roads, with others building.

FOR CIRCULARS AND ALL OTHER INFORMATION ADDRESS

JOHN M. BROOKS, Resident Manager,  
MIDDLESBOROUGH, KY.

# Come to HAGERSTOWN,

## Third Great Sale of Lots

CONDUCTED BY  
**J. GLENN COOK & CO.**  
BALTIMORE, MD.

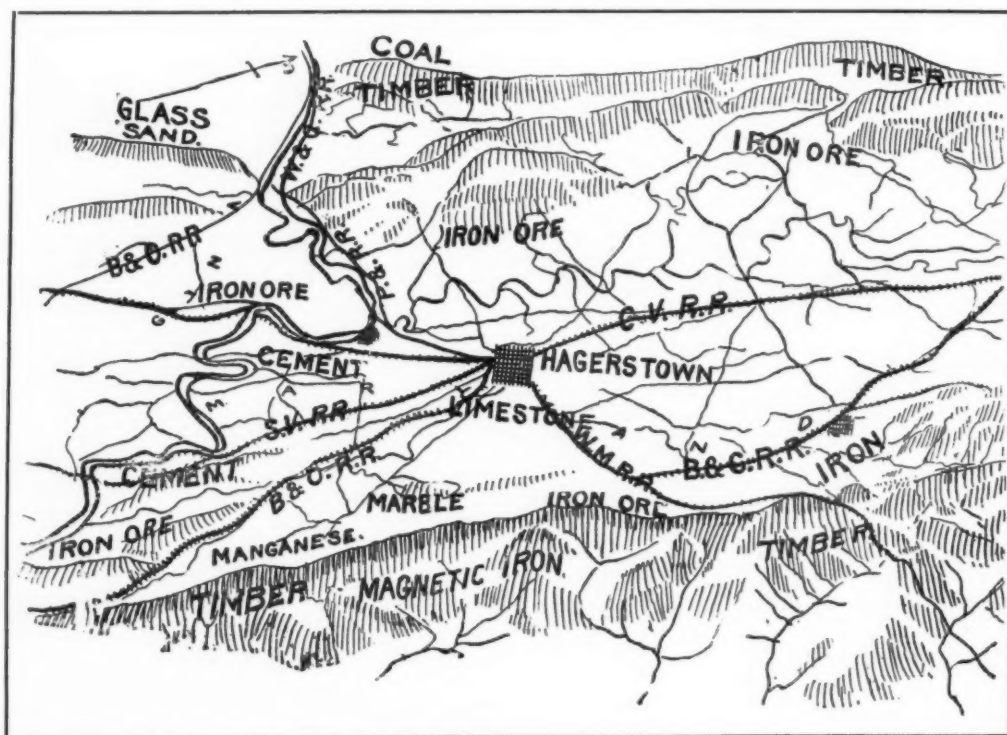
**December 9th and 10th.**

**THE MAGIC CITY OF MARYLAND.**

Where Money Grows Rapidly. The Interstate Metropolis. Population in 1884, 5,000. Population in 1890, 11,000.

Her Growth Marvelous. Her Future Magnificent. 6 Railroads. Fifty Passenger Trains Daily (50.) Thirty-nine Mail Trains Daily (39). Unsurpassed for Manufacturing Facilities—95 already located, 6 in the last three months.

Its location commands the trade of Maryland, Virginia, West Virginia and Southern Pennsylvania. Substantial assistance given to manufacturers to locate here. Has magnificent Hotels, firm and well-graded Streets, Electric Lights, Pure Mountain Water and Free Postal Delivery.



This contour map shows the location and railroad facilities of Hagerstown, in the "Garden Spot" of the Cumberland Valley.

## Hagerstown Manf'g., Mining & Land Improvement Co.

WASHINGTON COUNTY, MD., REAL ESTATE DEALERS,

**Own and Control about 1,000 Acres of Land adjoining the City Limits.**

Capital Stock,	-	-	-	-	\$1,000,000
Remaining in Treasury,	-	-	-	-	575,000

### OFFICERS.

<b>PHARES M. MISHLER, Pres't.</b>	<b>R. M. KEEDY, Secretary.</b>
<b>J. D. MAIN, Treasurer.</b>	<b>H. H. STRAUB, Acting Sec'y.</b>

### DIRECTORS.

CHAS. W. SEBOLD, President and Manager of the Hagerstown Spoke and Bending Works.  
S. M. SCHINDEL, President and Manager of the United Silk Mfg. Co.  
PHARES M. MISHLER, President and Manager Inter-State Fencing Co.  
J. HANSON BEACHLEY, Wholesale and Retail Merchant.  
CORNELIUS L. KEEDY, Proprietor and President of Kee Mar College.  
REUBEN M. KEEDY, formerly in the Wholesale Notion Business.  
J. D. MAIN, Merchant and Secretary of the Hagerstown Hedge & Fencing Co.  
ALEX. R. HAGNER, Counsellor-at-Law and Attorney for Second National Bank.

*Ores, Timber and Agricultural Products*

*Cheap and in the Greatest*

*Abundance.*

*Manufacturing Locations.*

*Every Desirable Advantage here for all who are seeking Homes, Business, or*



# DURHAM, North Carolina,

## CONSOLIDATED LAND & IMPROVEMENT CO.

CAPITAL - - - \$1,000,000.

PRESIDENT, **JULIAN S. CARR**, Prest. Blackwell Durham Tobacco Co.

VICE-PRESIDENT, **A. B. ANDREWS**, 2d Vice-Prest. Richmond & Danville Railroad.

SECRETARY AND TREASURER, **R. H. WRIGHT**.

This Company Owns 900 Acres of Land, 300 in the Business and Residence Portion of East Durham, and 600 in the Residence Section of Durham and Around the New Trinity College Buildings, now being erected. The First is Adjacent to Several of the Most Successful Manufacturing Plants.

*The Residence Portion, Notable for Beauty of Situation, has been Platted to Secure the Best Effects.*

**N**O EXPENSE will be spared by the Company in developing all this property. A standard gauge railroad, connecting with every railroad entering Durham, will pass through the center of the land designed for industries. A dummy line, under construction, will connect all the outlying lots with the center.

A Cotton Factory to employ 150 hands is to be built at once on the East Durham property; also a Flour and Meal Mill with a capacity of 200 barrels a day.

THE COMPANY HAS NO STOCK FOR SALE. It will offer only alternate lots, reserving others for enhancement in value by development.

Enterprises of merit will be aided by donations of sites and subscriptions to capital stock.

Some of the industries already planned are:

A Knitting Factory,	Woodworking Factory,
Furniture Factory,	Bucket and Barrel Factory,
Chair Factory,	Sash, Door, Blind and Finishings Factory,
Wagon Factory,	Spoke and Handle Factory,
Buggy Factory,	Foundry and Machine Shops,
Refrigerator Factory,	Brick Works,
	Brown Stone Quarry.

In 1856 Durham was named.

Population 1865, 90 persons

Population 1890, 8,000 persons.

In 1871 the first tobacco warehouse for the sale of leaf tobacco was established.

In 1890 it has four among the largest in the United States.

Taxable Values 1890, \$6,293,898.

Rate of taxation, city, county and State, 1 per cent.

In 1869 it had 6 manufactories, capital \$25,000.

In 1890 it has 23 manufactories, capital \$12,000,000; number of employees 2,000. Wages paid, 1890, \$750,000; advertising, 1890, \$1,000,000; paid revenue tax one year, \$127,269.54.

Durham has three Banks—capital, \$400,000.

Surplus, 49,000.

Deposits, July 1st, 1890, 623,000.

It has three newspapers, two daily and one weekly.

## DURHAM HAS

WATER WORKS,

ELECTRIC-LIGHT PLANT,

TELEPHONE SYSTEM,

STREET CAR LINE,

FIRE DEPARTMENT,

TEN CHURCHES (for whites),

SCHOOLS,

TRINITY M. E. COLLEGE.

Situated in the center of Golden Belt of North Carolina, comprising counties of Durham, Orange, Person, Caswell, Alamance, Chatham, Wake, Franklin and Granville.

114 miles from Lynchburg.

160 miles from Richmond.

175 miles from Norfolk.

26 miles from Raleigh.

50 miles from Sanford.

135 miles from Charlotte.

55 miles from Greensboro.

## DURHAM'S RAILROADS:

RICHMOND & DANVILLE SYSTEM.

DURHAM & KEYSVILLE, giving close Richmond Connection.

DURHAM & NORTHERN to Henderson, connecting with Seaboard Air Line.

LYNCHBURG & DURHAM, crossing Atlantic & Danville, and connecting with Richmond & Danville, Norfolk & Western and Chesapeake & Ohio at Lynchburg.

L. & D., to be extended to Fayetteville and junction there with Cape Fear & Yadkin Valley, crossing Robinson's System en route.

Extension of WILMINGTON & WELDON SYSTEM, already ordered by that company from Stanhope, N. C., to Durham.

Manufacturers Desiring a Location where all the Conditions of Cheap Materials, Climate and Railroad Facilities can be had in a Well-Established, Well-Advertised, Prosperous Community, Should Address

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 TRADE MARK. A complete outfit. Easy to put up, always reliable and fully warranted to meet the wants of any farmer.  
**BEST HAY TOOLS IN THE MARKET.**  
**MYERS' FORCE AND LIFT PUMPS**  
 Simple, durable, powerful, easy to operate never affected by frost. **PATENT GLASS VALVE**, will never corrode. Ask your dealer for our goods. Write for catalogue.  
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 Pat. Feb. 12, & Dec. 3, '99.  
 Cheapest and Best Automatic Steam Vacuum Pump. Handling DIRTY and GRITTY LIQUIDS without Wear, Oil or Care. Simple, Economical, Efficient & Durable. Pumping Plants for Contractors, Irrigation, Water Works, Railroads, Mining & General Hydraulic Purposes. Write or call for Circulars. **JOHN MASLIN & SON, SOLE MANUFACTURERS, 365-367 1st St., Jersey City, N. J.**

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 NORWALK, OHIO.  
 MANUFACTURER OF  
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 And Wood Force Pump Supplies.  
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 CONTRACTS TAKEN FOR FURNISHING WATER SUPPLY COOK'S PATENT WELLS. 18 YEARS EXPERIENCE IN WELL SINKING FOR WATER WORKS, RAILROADS, FACTORIES, BREWERIES ETC. ARTESIAN WELL PUMPS & TUBE WELL SUPPLIES.  
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**COMPLETE STEAM PUMP**  
 10 SIZES FROM \$7 TO \$75  
 FOR WATER SUPPLY TANKS, FIRE PUMPS ETC.  
**VAN DUZEN & TIFT**  
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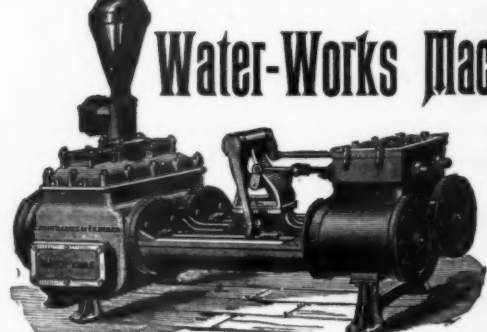
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 We have just issued a new illustrated catalogue of our Steam & Jet Pumps. A copy will be mailed free on application.

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 STANDARD DUPLEX PUMP AND BOILER. STANDARD COMPOUND STEAM PUMP. STANDARD DUPLEX STEAM PUMP.  
**PUMPS OF EVERY DESCRIPTION. CINCINNATI, O.**  
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 BUILDERS OF STEAM AND POWER  
  
**Pumping Machinery**  
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 OLDEST, BEST AND LATEST IMPROVED.  
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**BARR PUMPING ENGINE CO.**  
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**AUTOMATIC FEED PUMPS and RECEIVERS**  
 For Returning Hot Condensed Water to Boiler.  
**STEAM PUMPS FOR ALL DUTIES.**  
**The Buffalo Steam Pump Co.**  
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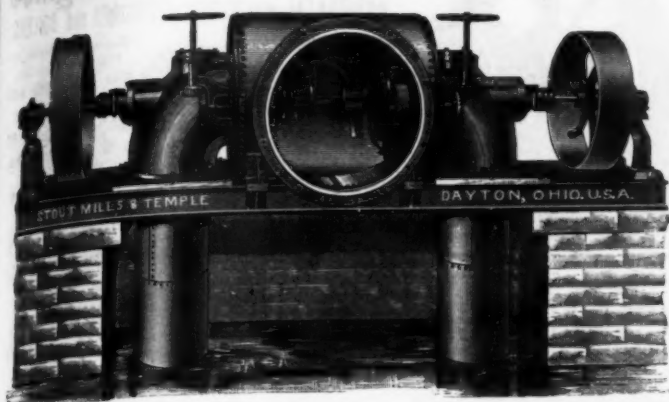
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**PUMPS**  
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 MANUFACTURERS OF  
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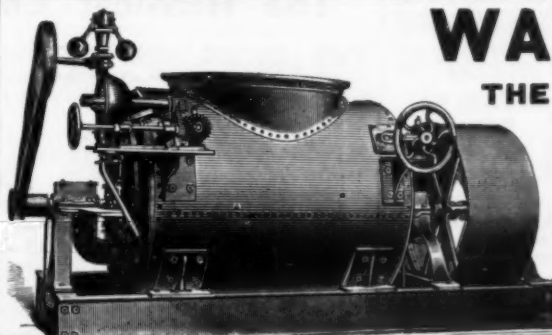
**Valley Pump Co.**

EASTHAMPTON,

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THE JAMES LEFFEL TURBINE

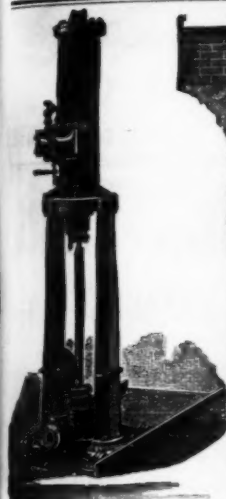
On Horizontal Shaft.

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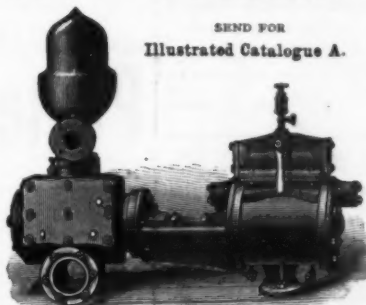


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SIMPLE,  
COMPACT,  
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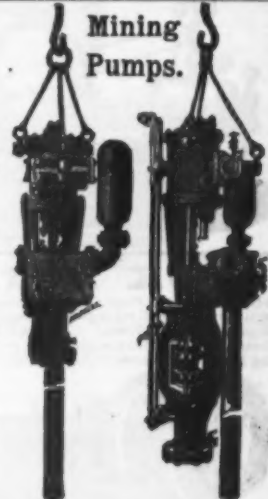
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NO OUTSIDE  
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**THE ECLIPSE PUMP MFG CO.**

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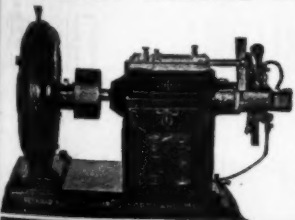
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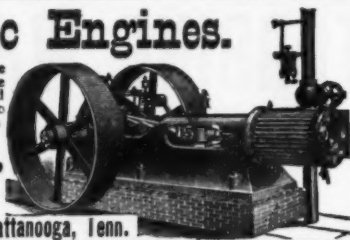


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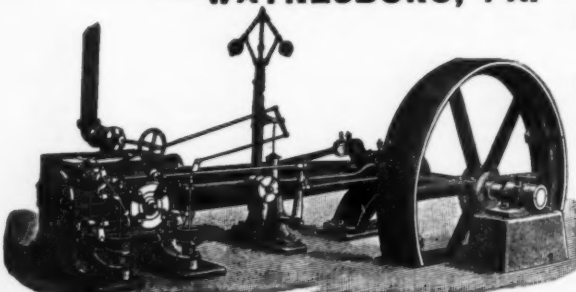
**VALLEY IRON WORKS,**  
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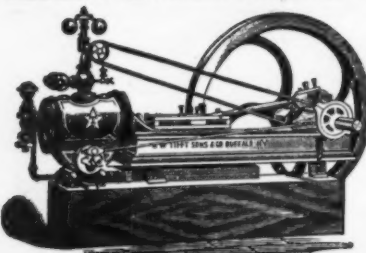
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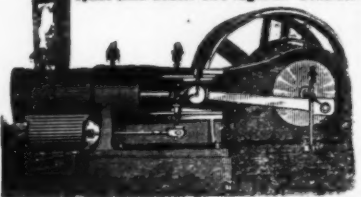


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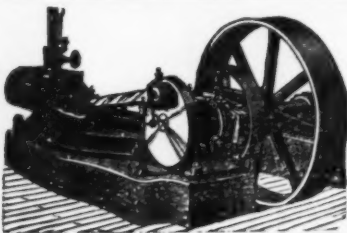
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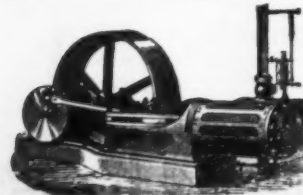
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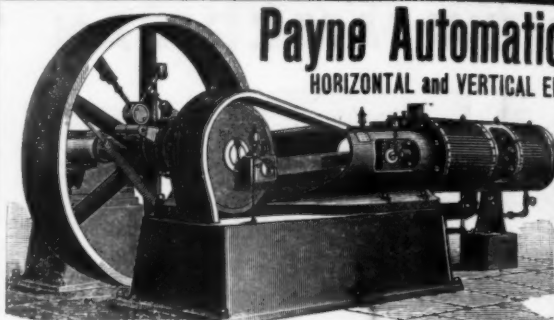
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Especially adapted to Electrical Purposes. Also COMPOUND AND TRIPLE COMPOUND ENGINES. **J. W. PAYNE & SONS,** Manufacturers, Elmira, N. Y. N. Y. Office, 40 Day St., 20 W. Randolph St., Chicago; H. P. Gregory & Co., San Francisco, Cal.

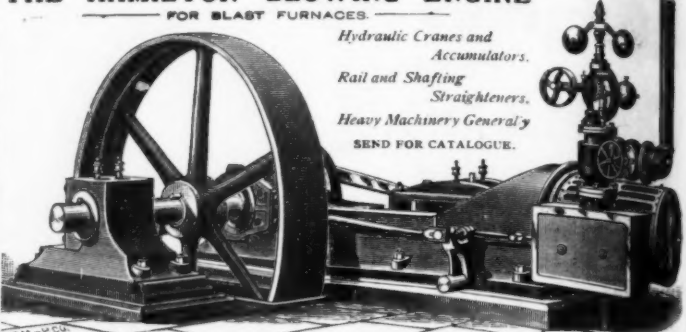
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FOR BLAST FURNACES.



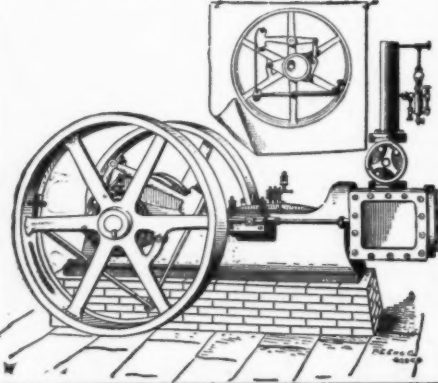
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Heavy Machinery Generally.  
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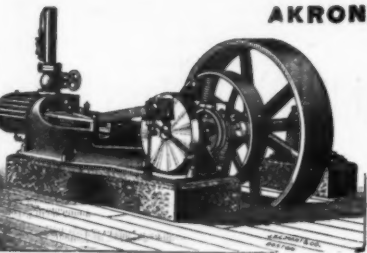
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BUILDERS OF

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Write for Circulars.

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## SKINNER ENGINE CO., ERIE, PA.

OVER 3400 IN USE

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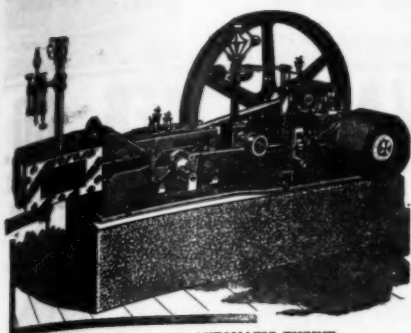


336, 338, 340, 342  
NORTH ST.**The WARFIELD MANUFACTURING CO. BALTIMORE, MD.**

COMPLETE PLANTS FOR THE

**Generation and Transmission****STEAM POWER.**

GENERAL MACHINE WORK.

**Machinery Designed and Constructed for Special Purposes.**

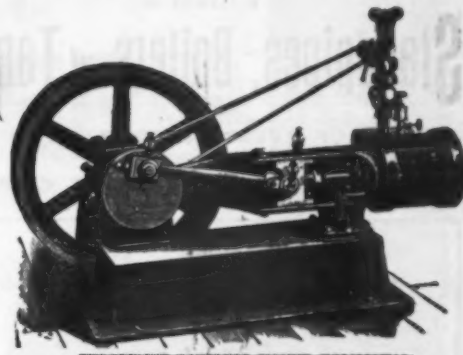
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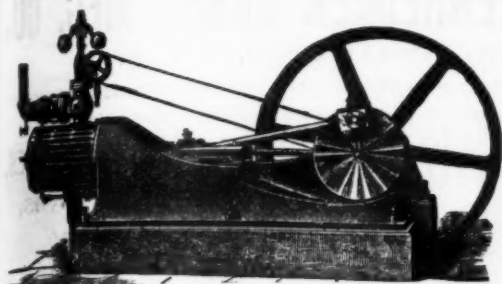
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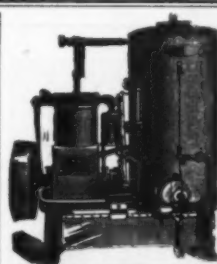
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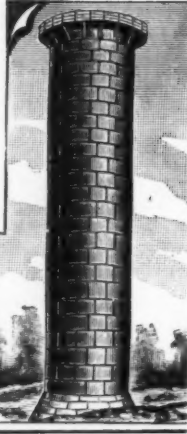
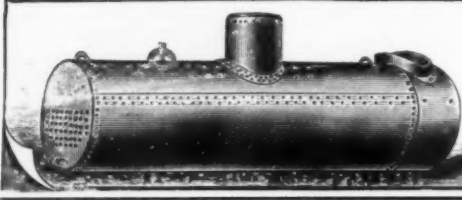
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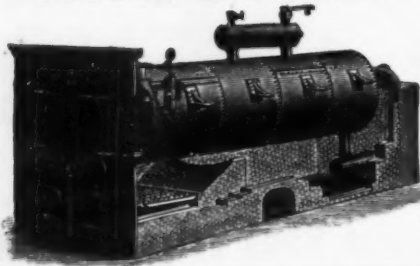
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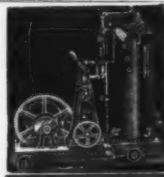
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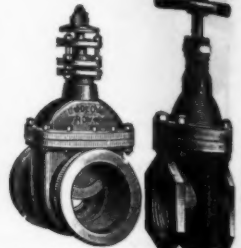
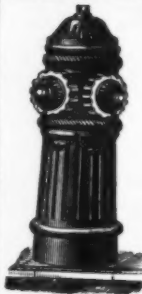


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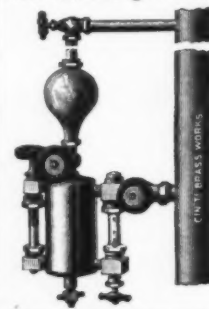
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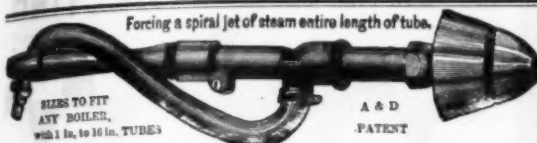
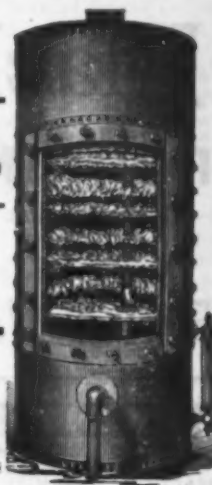
Removing all impurities from the water before it enters the boiler.

Thoroughly Tested.

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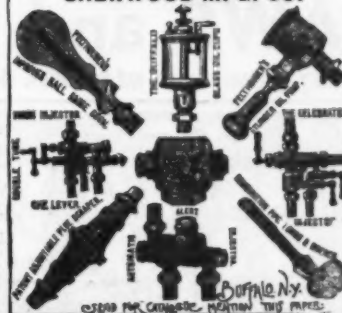
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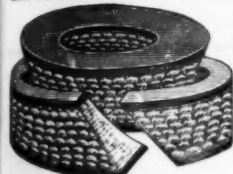
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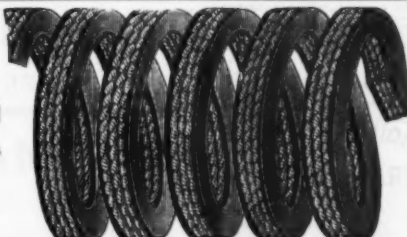
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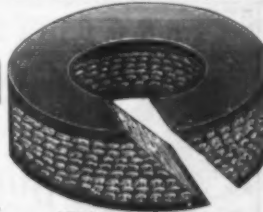
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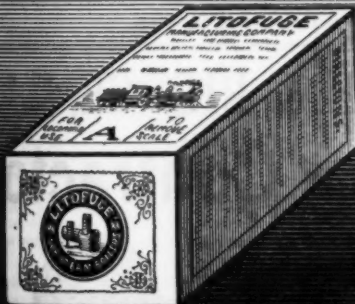
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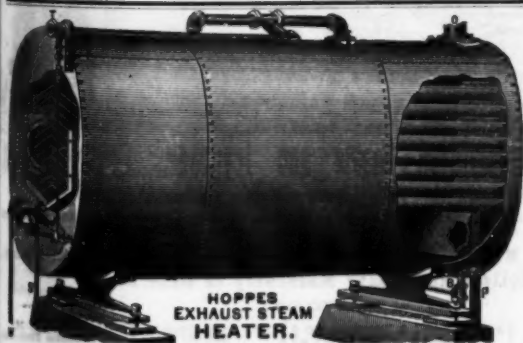
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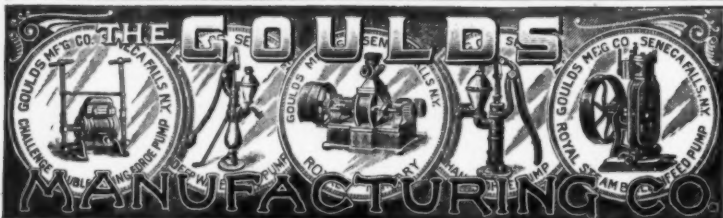
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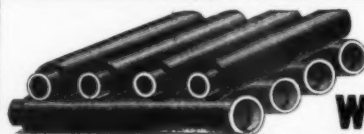
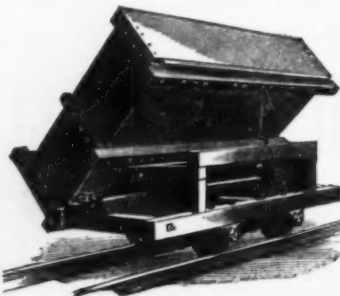
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## Railroad Construction

Aransas Harbor, Texas.—Railroad.—J. P. Nelson has contract for building the Aransas Pass & Harbor Island Railroad, lately referred to. The length is 4½ miles.

Atlanta, Ga.—Railroad.—A bill has been introduced in the legislature to incorporate the Atlanta, Americus & Florida Railroad to build a line from Atlanta via Talbotton and Americus, into Florida to Tampa.

Atlanta, Ga.—Railroad's.—Bills have been introduced in the legislature incorporating the Wabington & Middleton Railroad Co., and the Rich lands, Gulf & Northern Railway Co.

Atlanta, Ga.—Electrical Railroad.—The Capital Railway Co. has applied for a charter. It intends building 6 or 7 miles of electrical railroad. Frank Carter can give particulars.

Austin, Texas.—Street Railway.—The city council has granted E. J. Hippenheimer and associates franchise to construct a street railway, and J. J. and W. H. Tobin have applied to that body for a similar franchise.

Charlestown, W. Va.—Street Railway.—The Charlestown Construction Co. proposes constructing a street railway.

Corinth, Miss.—Railroad.—Ground has been broken for the Greenville, Nashville & Chattanooga Railroad, referred to in last issue (under Greenville). The line is to be completed to the Tennessee river, a distance of 22 miles, within 3 months. F. L. Bates, of Memphis, Tenn., is president of the company.

Corpus Christi, Texas.—Street Railway.—The City Street Railway Co. is to be chartered to build a street railway.

Dallas, Texas.—Railway.—The Oak Cliff Cross-town Railway Co. has been chartered with T. L. Masalia, president, to build a railway 10 miles in length into Dallas county, through and around Oak Cliff. The capital stock is \$200,000.

Davis, W. Va.—Railroad.—The Beaver Creek Lumber Co. will lay five miles of railroad track.

East Chattanooga, Tenn.—Electrical Railroad.—The East Chattanooga Land Co. intends building an electrical railroad.

Elkins, W. Va.—Railroad.—Hon. S. B. Elkins, vice-president of the West Virginia Central & Pittsburgh Railway Co., writes that his company will build a railroad from Elkins to Beverly, previously mentioned; also that the road from the Pennsylvania State line via Fairmont, referred to in last issue, would be built.

Fredericksburg, Va.—Street Railway.—The Fredericksburg Development Co. is said to have purchased the street railway.

Gaffney City, S. C.—Railroad.—C. H. Ragsdale, of Lancaster, and T. L. Shipley are reported as to commence surveying for the proposed Atlantic, Asheville & Knoxville Railroad.

Gainesville, Texas.—Railroads.—Charters are to be applied for, it is stated, for the construction of two railroads, both commencing at Gainesville, one to be 120 miles long, running in a northeasterly direction through Cooke county for 40 miles, crossing Red river near Dexter, thence to McAllister, I. T., and the other to extend in a northwest direction, crossing Cooke and Montague counties, to a point in the Indian Territory, 45 miles distant from Gainesville. The citizens of Gainesville are subscribing to both of these lines, and it is contemplated to begin work within the next 30 days.

Georgetown, Texas.—Railroad.—It is stated that a subscription is being raised for the building of a railroad from Granger via Georgetown to Austin.

Haughton, La.—Railroad.—Allen Bros. are reported as to build a railroad from a point two miles east of Haughton to near Bellevue.

Hope, Ark.—Railroad.—The Hope & Lewisville Railroad Co., lately mentioned, is reported as having awarded contract for the construction of 13 miles of its railroad.

Huntington, W. Va.—Street Railway.—The Huntington Belt Line has been chartered by C. L. Hafner, Sr., J. A. Tob-n, R. A. Goodwin and others with a capital stock of \$20,000. It is intended to build a street railway.

Newport, Tenn.—Railroad.—The Newport & Southern Railway Co. has been incorporated.

Norfolk, Va.—Street Railways.—The Norfolk & Eastern Investment Co., referred to elsewhere in this issue, has authority to build street railways.

Ocala, Fla.—Street Railway.—The Ocala Street & Suburban Railway Co. has amended its charter, authorizing an extension of its street railway.

Oxford, Ala.—Dummy Line.—The Oxford Lake Line will issue \$75,000 of bonds to extend and improve its dummy line.

Pine Bluff, Ark.—Electrical Railroad.—New York capitalists, represented by J. C. Calhoun, are reported as endeavoring to purchase the street railways of Wiley Jones and the Citizens' Street Railway Co., with the intent on of making them electrical railroads.

Raleigh, N. C.—Electrical Railroad.—Dr. S. W. Jacobs is said to have purchased the property of the Raleigh Street Railway Co. for a New York syndicate who will equip the lines with electrical power.

Sheffield, Ala.—Electrical Railroad.—The Sheffield Street Railway Co. is reported as to change its dummy line to an electrical railroad.

Sumter, S. C.—Railroad.—It is stated that the Wilmington, Columbia & Augusta Railroad Co. (office, Wilmington, N. C.) at a recent meeting authorized its directors to build the proposed extension to Augusta, Ga., as soon as practicable.

Waco, Texas.—Railroad.—The Waco, Lampasas & Llano Railroad Co. has been chartered by E. M. Longcope, of Lampasas; Henry Exall, of Dallas; C. E. Longcope, of Philadelphia, Pa.; T. F. M. Clure, of Welton, Ohio, and others to build the railroad from Waco to Llano, referred to in last issue (under Llano). Contract is said to have been awarded to the Llano Construction Co., and work is to commence at once. C. A. Gilchrist, of Fort Madison, Iowa, is engineer in chief. The company has a capital stock of \$1,500,000.

## A Railroad to the Bessemer Ore Region of Texas.

The contract for the construction of the Waco, Lampasas & Llano Railroad was let to the Llano Construction Co., which is composed chiefly of Texas capitalists and has its headquarters at Lampasas. The road between the latter place and Llano will be first constructed, and it is to be completed within twelve months from October 1 last. The completion of this road will make available the vast resources of the Llano district, to which attention has been called from time to time in these columns. There is already in existence a strong organization for the development of Llano's vast stores of high-grade Bessemer ore, and the company has only awaited the building of a railroad to go forward vigorously with their plans. Contracts have already been made for the location of several large enterprises at Llano.

FAYETTEVILLE, N. C., paid a deserved compliment to a distinguished son by tendering to Major E. J. Hale, formerly editor of the Fayetteville Observer, an elaborate banquet at the Hotel Lafayette. The occasion was Major Hale's return to his native city after an absence of nearly five years in England, where, as consul of the United States at Manchester, he had won golden opinions for himself from the most distinguished people of that great trade center, and had so conducted the affairs of that important office as to merit and receive the approbation of the Secretary of State and the Secretary of the Treasury as well as of all his countrymen who had business to do at the consulate. Major Hale is at present the representative in this country of the Manchester Ship Canal Co., a very wealthy British corporation, of which Lord Edgerton is chairman. The construction of this new waterway is likely to materially affect American interests in Great Britain, and it is a great compliment to the South that one of its rising young men has so proven his ability in an important government position abroad as to acquire the confidence of eminent English financiers and to be selected by them to represent their interests in the United States.

## MINERAL CITY, VA.

MINERAL CITY, LOUISA CO., VA. }  
November 22, 1890. }

Editor Manufacturers' Record:

The Mineral City Mining, Manufacturing & Land Co. announces that it will dispose of 300 choice business and residence lots in this place at auction on Friday, December 5th proximo. Tickets will be sold at excursion rates at all points on the Chesapeake & Ohio Railroad, and this road will run a special train from Richmond on the day of sale. The tickets over the Chesapeake & Ohio will be good from December 4th to 6th, and the Mineral City Co. offers to refund the railroad fare to all purchasers of lots.

The terms of the sale are very liberal—one-fourth cash, and negotiable notes, with interest from date, for balance at six, twelve and eighteen months, to be secured by deed of trust. At any time within ten days after the sale the company's stock will be received at par for all deferred payments. Schedules and price-lists of lots to be sold will be furnished upon application to the company, and where there is only one bidder for a lot at the list price prior to the sale, he will be permitted to take it. Where there are several bidders for one lot it will be put up at auction, but no outsider will be permitted to bid against them.

Little effort has been made to advertise this place, and the tide of speculation is not likely to mount so high as to frighten away conservative men. But indications point to sales at prices which should prove satisfactory alike to the company and to purchasers. The lot drawing appears to have given very general satisfaction, and the prices at which such lots as are on the market are held clearly indicate the confidence of the holders in the future of Mineral City.

With the vast mineral deposits found in this vicinity; with the extensive mining operations, giving employment to hundreds of men, conducted within a few miles of the city; with a site unsurpassed for healthfulness and beauty, and with a climate for which may be claimed all the advantages of both the North and the South, with none of the evils of either, if this place were in Southwest Virginia, exciting scenes and fabulous prices might be expected upon the day of sale. But Mineral City occupies a position at this time somewhat analogous to that of Roanoke ten years ago. Roanoke was the pioneer town in the industrial wilderness of Southwest Virginia. At that time modern town building was as little known in that region as it is to-day in South America. Roanoke was a small country village, and any man with the foresight and courage to predict that it would have a population of 20,000 souls in this year of grace would have been set down not as a mendacious boomer, but as a raving lunatic. To-day everybody can see that the only fools were those who doubted the prosperity of that lusty young giant. It got a start of the other towns in that part of the State which they can never overcome. Every new town in that region helps to boom Roanoke and support it. They are feeders which swell its population and wealth. Mineral City is the pioneer town in the great mineral belt of Midland Virginia, which extends entirely across the State in a northeast and southwest direction. It is the natural, and I might almost say inevitable, gateway to this region, and is fast getting a start which must assure its supremacy in the future.

## BUILDINGS AND INDUSTRIES.

In addition to the private buildings now under construction, the commodious two-story building for the newspaper plant is nearing completion, and it is expected that the presses, etc., will be moved in and ready for work before this letter is printed.

The building intended for the company's offices is nearly ready for occupation, the outside work being done. The spoke and hub factory, a building about 213 feet by 40 feet and two and three stories high, is already up, and the roof and rafters will probably be on before this is in type. This industry is one which should prove a great success. It will give employment to a large number of men, and, in addition to the wages paid out here, will distribute a considerable sum of money for timber among the people in the country around this place. More important than this is the fact that it ought to prove the beginning for many extensive industries for the manufacture of wood.

This region affords capital timber for ax-helves, axletrees, rims and spokes, and there is no reason why wagons, carriages and buggies cannot be manufactured here as cheaply as anywhere in this country.

In the southern part of the city the Staunton House Construction Co. is erecting a large plant, the main building of which is 50 by 100 feet. The frame of the building is now up and ready for the rafters and roof. A side track has been laid from the main line of the Chesapeake & Ohio Railroad to this building. The great boiler for the engine and a large part of the machinery are now on the ground. This plant will be pushed to completion, and it is said that the company will be able to turn out 1,500 houses per year.

A shaft is now being opened at the Slate Hill gold mine, one of the properties of the Mineral City Co., and if the opinions of miners and experts here can be relied upon, a new and incalculable source of wealth for this region will soon be made available. They believe that the problem of gold mining here has been solved by the new processes of treating ores. By concentration and chlorination, they say, refractory ores are brought into subjection and made tractable. Mr. J. W. Flannagan, the manager of the Mineral City Co., informs me that two gold reduction works have been secured for this place. These should assure to Mineral City the lion's share of the profits to be derived from this industry.

## MINES AND RAILROADS.

Leaving the main stem of the Chesapeake & Ohio at Mineral City, a branch road (broad gauge) runs down the valley of Contrary creek four miles to the property of the Sulphur Mines Co. of Virginia. For many years iron was smelted in a charcoal furnace at that place from the ore which forms the hat to the vast deposits of pyrites found here. The vein extends for a mile or more through the property of this company. Large buildings and expensive machinery have been erected, and immense quantities of ore are shipped to Mineral City and thence to points north, south, east and west.

The next property going south, in the direction of Mineral City, is the Boyd Smith mine, which was recently sold to an English company. It is supposed that steps will be taken at an early day to develop and operate this mine. The third property is the Arminius copper mine, owned and operated by a Northern company. This mine is a mile and a-half or two miles from Mineral City, and has its own broad-gauge railroad, uniting with the Chesapeake & Ohio at this place. Under the efficient management of Mr. W. H. Adams, the manager, and Mr. H. M. Bancroft, the superintendent, this mine has been worked with great success for the past seven or eight years. A large sum has been expended upon buildings and machinery, and everything about the mines, the buildings and the grounds, which are kept with scrupulous neatness, indicates Northern thrift and prosperity. This property extends "about three-fourths of a mile length on the ore beds." In a recent article, Captain Adams, in speaking of the

main working shaft, says: "Here we find the deposit opened for 600 feet length, 500 feet depth and average width of 20 to 60 feet. The pyrites mined from this deposit and shipped at the rate of 40,000 tons annually are too well-known to need special comment, analysis having already been given in the table at 45 to 48 per cent. sulphur, etc."

## A BIG DEAL.

The Mineral City Co. announces that a deal has been made by which the Arminius mines have been purchased by the United States Chemical Co., of Boston, Mass., which has a capital stock of \$1,200,000, and that a large plant for the manufacture of sulphuric acid and fertilizers will be erected here. In importance to Mineral City this industry would prove second only to the proposed line of railroad crossing the Chesapeake & Ohio, or leaving it at this place and running in an air line upon the great mineral belt of Midland Virginia.

## THE NEW RAILROAD.

That this line, of which mention has been made in a former letter, will be constructed may be accepted as well nigh a certainty. It is a question of time, to my mind more than a question of location. A road four miles long, which should form a part of this new line, is already in operation, and is said to have been constructed at a total cost of \$25,000. But the great interest in this subject now manifested by the people who live upon this mineral belt, the concentration of capital at Mineral City, Fredericksburg and Potomac City (Quantico), taken in connection with the great success of the mines now in operation, give the best hope of a speedy move looking to its construction. To this end the energies of the Mineral City people will be directed, and they expect the hearty co-operation of Fredericksburg and Potomac City as well as of individuals and companies owning property along the proposed route. Full assurance of the building of this road would give Mineral City a great boom and a powerful impetus. Her importance and supremacy in this region would no longer admit of question. At this point the pyrites, iron, manganese, gold and other minerals hauled over the new road would meet the coal and coke from New River and Pocahontas. With properly directed energy and enterprise backed by capital, the timber and tobacco of this region should build a city here, to say nothing of the vast mineral deposits in the immediate vicinity of this place which give it importance to-day. But if this new railroad is secured a city at this point becomes inevitable. It will grow with help or without it. It will prove the Roanoke of the mineral belt of Midland Virginia, and the new towns which may be expected to spring up will but add to its importance and prosperity. The claims of Mineral City are worthy of careful consideration. Persons who contemplate investing should come in person and make a thorough examination.

HENRY M. HOLLADAY.

THE business done by the railroads in South Carolina during the month ending September 30th was considerably greater than for the same period last year. The increase is shown in the following table:

	Passenger earnings.	Freight earnings.	Tons carried.
1889.....	\$180,644 75	\$431,567 11	261,679
1890.....	220,054 64	541,360 25	334,313

AN invention that may revolutionize the wire nail industry has recently been put into practical shape at a machine shop in Parkersburg, W. Va. Its great merit is that while it occupies no more space than the machines now in use, it makes with each revolution three nails from a single wire while the others make but one. This additional production is obtained, so it is claimed, without any increase of cost for labor, while the daily output of a factory using these machines would be three times as great as of those having an equal number of the old-fashioned kind.

## Southern Financial News.

## NEW BANKS.

Abilene, Texas.—C. Villeneuve has, it is reported, established a private bank.

Arlington, Texas.—A bank is reported as to be started.

Atlanta, Ga.—Bills have been introduced in the legislature to incorporate the Continental Bank & Trust Co., the Piedmont Loan & Banking Co. and the Bank of Sumter.

Chattanooga, Tenn.—A. Harbison and others are reported as to organize a national bank.

Columbus, Miss.—The establishment of a national bank is probable.

Fort Payne, Ala.—It is reported that Western parties contemplate organizing a \$500,000 trust and banking company in Fort Payne.

Harmony Grove, Ga.—A bank with a capital stock of \$50,000 will probably be established.

Kaufman, Texas.—The Farmers & Merchants' National Bank has, it is stated, been organized with J. C. Maple as president.

Louisville, Ky.—The Union National Bank has increased its capital stock from \$500,000 to \$750,000.

Pell City, Ala.—The establishment of a national bank is contemplated.

Terrell, Texas.—The establishment of a bank is talked of.

Timmons, S. C.—J. McSweeney, D. H. Traxler, C. A. Smith and others have incorporated the Bank of Timmons.

Titusville, Fla.—The Florida Loan & Trust Co. will, it is reported, be organized with a capital stock of \$1,000,000.

Towson, Md.—The Germania Permanent Loan & Savings Association of Baltimore County has been organized by M. Muller Philip C. Mueller and others. The capital stock is \$416,000.

Athens, Ga.—The Northeastern Railroad of Georgia has declared a semi-annual dividend of 3 per cent.

Baltimore, Md.—The Border State Perpetual Building Association No. 2 has declared a semi-annual dividend of 4 per cent.

Durham, N. C.—The Bank of Durham has declared a dividend of 10 per cent.

Nashville, Tenn.—Thomas Parks, Julius Sax and J. G. Aydelott have incorporated the Southern Investment Co.

New Orleans, La.—The New Orleans Brewing Association has declared a semi-annual dividend of 5 per cent.

Oxford, Ala.—The Oxford Lake Line lately referred to, will issue \$75,000 of bonds for improving its dummy line.

Richmond, Va.—The Richmond Railway & Electric Co. has executed a mortgage deed to the Atlantic Trust Co., of New York, for \$2,000,000 to cover bonds issued for the purchase of several electric-light and railway companies.

The Alabama Mineral Land Co. has declared a dividend of 5 per cent, payable December 1 at the Continental National Bank, New York city.

Uniontown, Ala.—A bill has been introduced in the legislature at Montgomery authorizing the issuance of \$25,000 of bonds for the construction of water works.

THE board of directors of the Fourth National Bank of New York City adopted resolutions last week requesting the officers of that institution to discount commercial bills freely, giving as a reason that during the month \$3,285,000 of commercial paper had fallen due and had been paid at maturity, while at the same time, because of the stringency in the money market, the merchants had been deprived of their customary facilities. This established the fact that the mercantile community was in a prosperous condition. The same course might wisely be adopted by the banks in all our large cities.

CHICAGO capitalists have purchased 60,000 acres of land with a frontage of nine miles on the Gulf of Mexico, lying between Ocean Springs and Mobile. They have organized a company under a Mississippi charter, and propose to spend much money in making it a fashionable winter resort.

## Buena Vista's Onward March.

BUENA VISTA, VA., Nov. 24, 1890.

Editor Manufacturers' Record:

The success of Buena Vista's first sale of lots went beyond the most sanguine expectations. The grand total amount realized was \$430,000, and nearly three hundred lots were sold. The number of visitors present in the town for the sale was estimated at 2,500. These came principally from Baltimore, Washington, Columbus, O., and the neighboring towns of our own State. No pains were spared to show them Buena Vista's advantages and bright prospects for the future. The bidding was spirited from the start, and lot after lot was easily sold at conservative prices. There was no inflation of values, and no injurious reaction can take place after this activity. The Buena Vista Steel Co. have completed their organization, and have laid plans for the construction of the plant. The site will occupy thirty acres. This means great things for Buena Vista, as aside from the large steel plant itself, several kindred industries will follow in its wake.

THE Southern Lumber Manufacturing Association will hold a convention at New Orleans the second week in December, commencing on the 9th. J. H. Crump, Esq., Little Rock, Ark., secretary of the association, can give particulars. The Lumbermen's Exchange, of New Orleans, has placed its rooms at the service of the association.

## The Southern Investment Co.

J. J. BURNS, Manager.

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BANKERS.

—RICHMOND, VA.

Our Manual of Investments for 1890, the largest work of the kind published by any banking house in America, (406 pages, octavo, cloth,) may be had without charge by clients, correspondents and those expecting to do business with us; by others at \$2 per copy.

BASIC CITY.	Number of lots given with each to sh'rs at'ck.	When organized.	Capital stock.	Par value.	Bid.	Asked.
Basic City M'ng. & Land Co.	..	Dec. 7, '89	\$700,000	\$50	100	52
Bristol.						
Southwest Bristol Land Co.	..	Aug. '90	300,000	\$150,000	100	..
Pioneer Land Co.	..	June, '90	500,000	..	100	..
Richmond & Bristol Land Co.	..	June, '90	220,000	..	20	..
Commonwealth Land Co.	..	June, '90	104,000	60,000	20	..
Buchanan.						
Central Land Co.	..	Apr'l 12, '90	1,500,000	750,000	100	73
Buena Vista Co.	5	Feb 14, '89	800,000	50%	100	73
Buena Vista Improvement Co.	..	Jan., 1889	50,000	full paid	100	124
Clifton Forge.						
C & O. Development Co.	4	April, '90	300,000	..	100	..
Clifton Forge Mfg. & Devel Co.	5	Aug. 18, '90	200,000	..	100	..
Clifton Forge Co.	5	May, 1890	400,000	..	100	..
Charlottesville Ind. & Land Imp. Co.	2 1/2	April, '89	50,000	..	50	53
Belmont Land Co.	10	July 15, '89	100,000	..	100	105
Charlottesville Development Co.	None	Aug. 1, '89	40,000	..	50	..
West End Land Co.	2 1/2	April 15, '89	40,000	..	50	53
Jefferson Park Improvement Co.	None	Aug. 15, '89	150,000	..	50	100
Glasgow.						
Rockbridge Co.	5	Sept., '89	5,000,000	475,000	100	112 1/2
West End Glasgow Land Co.	None	March, '90	..	103,000	..	125
Harrisonburg.						
Harrisonburg Land & Imp. Co.	..	May 22, '90	150,000	..	100	110
LYNCHBURG.						
West Lynchburg Land Co.	..	..	1,000,000	45%	100	..
Rivermont Co.	..	..	1,500,000	40%	10	..
South Lynchburg Land Co.	..	..	..	60%	100	..
Park Avenue Land Co.	..	..	100,000	50%	100	..
PETERSBURG.						
West End Land & Improvement Co.	..	June 15, '90	25,000	30%	60	..
Virginia Immigration L'd & Imp. Co.	..	July 10, '90	50,000	100	..	121
PULASKI.						
Pulaski Development Co.	..	March, '90	500,000	200,000	..	40
STAUNTON.						
Staunton Development Co.	5	April, '90	2,000,000	..	..	..

\* Stock declared full paid.

† 10 per cent. dividend declared October, 1889.

‡ 10 per cent. dividend declared, payable January 1, 1891.

§ \$4,000 held in treasury.

¶ When 50 per cent. has been paid in the stock will be declared full paid. The company receives the stock at 75 in payment ad 4th payments for lots purchased of them.

†† Stock taken at \$150 in part payment for lots.

EQUITABLE  
MORTGAGE COMPANY.

Capital Subscribed..... \$2,000,000.00  
Paid in (cash)..... 1,000,000.00  
Surplus, undivided profits..... 396,716.85  
Assets..... 11,165,964.84

The well-known firm of accountants, Barrow, Wade, Guthrie & Co., of London, Manchester and New York, upon auditing the accounts of the Company as published June 30th, 1890, appended thereto the following certificate:

Having examined the books of the Equitable Mortgage Company, we hereby certify that the foregoing accounts and statement are in conformity therewith, and we believe that the accounts fully and fairly represent the position of the Company as on the 30th June, 1890.

BARROW, WADE, GUTHRIE & CO.  
New York, 16th October, 1890.

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Berlin, Germany.

SEALED PROPOSALS will be received at the Office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M. on the 18th day of December, 1890, for all the labor and materials required for the approaches to the U. S. Postoffice, &c., building at Brooklyn, N. Y., in accordance with the drawings and specification, copies of which may be had on application at this office or the office of the Superintendent at Brooklyn, N. Y. Each bid must be accompanied by a certified check for \$100. The Department will reject all bids received after the time herein stated for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be enclosed in envelopes, sealed and marked "Proposal for the Approaches to the U. S. Postoffice, &c., building at Brooklyn, N. Y." and addressed to JAS. H. WINDRIM, Supervising Architect. November 25th, 1890.

Richmond Stock Exchange  
Quotations.

Reported by JOHN L. WILLIAMS & SON, Bankers,  
Richmond.

RICHMOND, VA., November 25, 1890.

	BID.	ASKED.
North Carolina 4's, 1910.....	96	99
North Carolina 6's, 1910.....	124	124
Virginia New 3's, 1932.....	65	6 1/2
Danville 5's.....	100	102
Lynchburg, Va., 5's, 1915.....	103	..
Petersburg, Va., 5's, 1918.....	104	..
Norfolk, Va., 5's, 1911.....	106	..
Richmond, Va., 5's, 1922.....	108	110
Atlanta & Charlotte Ry., 1st 7's, 1907-117	120	..
Atlanta & Charlotte Ry., 2nd 7's, 1900-101	105 1/2	..
Char., Col. & Aug. R. R. Gen. 6's, 1932.....	109	..
Georgia Pacific Ry., 1st 6's, 1922.....	110	111
Georgia Pacific 2d 5's, 1923.....	68	6 1/2
Ga. Pacific Income, 5's.....	15	..
Petersburg Railroad Class A 5's, 1906-103	..	..
Petersburg Railroad Class B 6's, 1906-103	..	..
Rich. & Danville R. R. Gold 6's, 1915.....	..	..
West N. Car. R. R. Gold 6's, 1914.....	96 1/2	100
Northwestern N. Car. R. R. 1st 6's.....	102 1/2	103
Atlanta & Charlotte R. R. Stock.....	95 1/2	9 1/2
North Carolina Railroad Stock.....	100	..
R. F. & Pot. R. R. Div'd Obligations.....	112	114
Virginia Midland Railway Stock.....	..	..
Sloss Iron & Steel Co. Stock.....	25	..
Sloss Iron & Steel Co. 1st 6's.....	50	..
Sloss Iron & Steel Co. 2d 6's.....	..	..



## NOTICE

The town of Hendersonville, N. C., has issued

**\$15,000.00**

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These bonds are now for sale. They bear 6 per cent. interest, and the interest is payable semi-annually. The bonds are well secured, and offer a fine investment for someone. For further information apply to V. L. Hyman, mayor, or W. A. Hood, secretary.

V. L. HYMAN, Mayor.

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IRON COMPANY, Abingdon, Va., have 50,000  
Acres of Coal Lands lying in the counties of  
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they wish to lease in tracts of 500 to 1,000 acres.  
About 20,000 acres is near the Clinch Valley  
Extension of the Norfolk & Western Railroad.  
An average of three seams, ranging from four to  
eight feet in thickness above water level under-  
lies this field. It cannot be excelled as a coking,  
gas, steam or domestic coal. We invite an  
examination of the field. Railroad completed to  
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G. V. LITCHFIELD, Vice President.

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Organized for the especial purpose of negotiating Southern Railway Bonds and General Securi-  
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\*Means machinery is wanted, particulars of which will be found in "Machinery Wanted" columns.

In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

## ALABAMA.

Anniston—Power Plant.—F. P. Heifner has, it is reported, received contract to erect the bee-hive power plant previously mentioned.

Ashville—Electric-light Plant.—The Western Electric Light Co., of Chicago, Ill., has contract for the erection of the electric light plant lately mentioned.

Birmingham—Cotton Gin Works.—The Smith Sons' Gin & Machine Co. has put new machinery in its cotton gin works, mentioned in last issue.\*

Birmingham—Publishing.—W. E. Russell, T. K. White and J. G. Starr have incorporated the People's Voice Publishing Co. to publish the People's Voice. The capital stock is \$20,000.

Birmingham—Rolling Mill.—An Eastern party is investigating with a view of establishing a 75-ton rolling mill in Birmingham. J. F. Johnston can give information.

Birmingham—Sewerage System, &c.—The city will petition the legislature for authority to issue \$150,000 of bonds for constructing sewers, paving and macadamizing streets, &c.

Birmingham—Coal Mines.—The Birmingham & Little River Coal Co. has been incorporated.

Birmingham—Coal Miners.—The Birmingham Coal Co. has been incorporated.

Bridgeport—Water Works.—The water works previously reported will, it is stated, cost \$65,000.

Bridgeport—Rolling Mill.—A rolling mill is reported as to be constructed. The Bridgeport Land & Improvement Co. can give information.

Connellsville—Coal Mines.—The De Bardeleben Coal & Iron Co. is reported as developing coal mines at Shannon, near Connellsville.

Demopolis—Lumber Mill.—The Black Warrior Lumber Co. has been organized and will, it is stated, erect a \$50,000 lumber mill.

Florence—Brick Works.—The Lauderdale Pressed Brick Works has, it is stated, put additional machinery in its works.

Florence—Hay Press Works.—J. D. Ozier, of Corinth, Miss., is endeavoring to organize a stock company to manufacture his patent portable hay press in Florence.

Florence—Cotton Mill.—It is reported that a stock company is being organized to erect another cotton mill.

Fort Payne—Coke Ovens, &c.—The Fort Payne Coal & Iron Co. will build, it is reported, 200 coke ovens and open new coal mines on Lookout mountain.

Heflin—Planing Mill.—J. C. Jackson has, it is stated, moved his planing mill from Tallapoosa, Ga., to Heflin.

Huntsville—Plow Colter Factory.—The Moon Colter Manufacturing Co. will start a factory for the manufacture of the Moon plow colter.

Huntsville—Canning Factory.—The Farmers' Alliance will establish a canning factory.

Huntsville—Cotton Mill.—The Dallas Manufacturing Co. will, it is reported, erect a second cotton mill after the completion of its first one.

Northport—Electric-light Plant and Water Works.—The city will, it is stated, petition the legislature for authority to issue bonds to secure the erection of an electric-light plant and the construction of water works.

Piedmont—Cotton Factory.—The Barlow & Thatcher Spinning Co., of Henry Clay Factory, Del., propose to organize a stock company to erect the cotton factory mentioned last week.

Piedmont—Wheel Factory.—Addison & Willett, of Delaware, mentioned in last issue, will establish a carriage-wheel factory in Piedmont.

Piedmont—Planing Mill.—The Piedmont Planing Mills, recently mentioned, will put in additional machinery.

Riverton—Grain Elevator.—J. A. Foote of Iuka, Miss., contemplates the erection of the grain elevator mentioned last week.\*

Sheffield—Iron Furnace.—The Lady Ensley Furnace Co. is improving its Lady Ensley iron furnace, as lately reported, at a cost of about \$20,000.

Sheffield—Water Works.—A bill will be introduced in the legislature authorizing the city to issue \$150,000 of bonds to construct and operate the system of water works in Sheffield previously mentioned.

Sheffield—Sewerage System.—Contract has been let, it is reported, for the construction of a new sewerage system.

Shelby—Water Works.—The Shelby Manufacturing & Improvement Co. is constructing the water works, as reported in last issue.

Tredegar (P. O. at Jacksonville)—Water Works.—The Tredegar water works will, it is reported, be enlarged.

Tredegar (P. O. at Jacksonville)—Ice Factory.—A stock company has been organized to erect an ice factory. J. W. Burke can give information.

Tusculum—Implement Factory.—The Barton Agricultural Works, of Sheffield, is removing its agricultural implement factory to Tusculum and erecting additional buildings.

Uniontown—Water Works.—The city will petition the legislature for authority to issue \$25,000 of bonds for constructing a system of water works.

## ARKANSAS.

Pine Bluff—Cold-storage Warehouse, &c.—A Chicago (Ill.) syndicate is reported as to establish a cold-storage warehouse in Pine Bluff, and is also considering the erection of a beef and pork-packing establishment.

## FLORIDA.

Bellevue—Land.—It is stated that an English syndicate has optioned the Avon Park lands in De Soto county and the Marion county lands of O. M. Crosby, consisting of 20,000 acres, and that a \$1,000,000 stock company will be organized to develop same.

Fort Ogden—Phosphate Works.—The South Florida Phosphate Co. is reported as erecting phosphate works at Silent Lake.

Jacksonville—Cigar Factory.—Sigo Myers will erect an \$80,000 cigar factory, it is reported.

Jacksonville—Cigar Factory.—Cigar parties are reported as to establish a cigar factory in Jacksonville, if sufficient inducements are offered. Secretary Board of Trade can give information.

Macon—Phosphate Mines.—T. C. Fuller, of Wolverhampton, England, is reported as having purchased a tract of phosphate land near Macon, and as organizing a stock company to develop same.

Polk County—Phosphate Mines.—J. W. Allison, E. B. Addison and W. B. Chisholm have incorporated at Charleston, S. C., the Atlantic & Gulf Phosphate Co. to develop phosphate mines in Polk, De Soto and Manatee counties. The capital stock is \$250,000.

Punta Gorda—Cigar Factory.—Emerson, Hinckley & Tyler are reported as to build a cigar factory.

Riverside—Shoe Factory.—W. N. Emery, of Jacksonville, is reported as to erect a \$65,000 shoe factory at Riverside.

Riverside—Furniture Factory.—Clark & Loftus, of Jacksonville, are reported as to erect a furniture factory at Riverside.

Satsuma—Packing-house.—Dr. Hinion is reported as erecting a packing-house.

Sumter County—Phosphate Mines.—A. E. Waddell, G. M. Hubbard and E. C. Evans have, it is stated, purchased 52 acres of phosphate land from Mr. Stackhouse in Sumter county, and will develop same.

Suwanee County—Phosphate.—The Ocala & Blue River Phosphate Co., of Ocala, has purchased, it is stated, 18,000 acres of phosphate lands in Suwanee and La Fayette counties.

Titusville—Electric-light Plant.—The Titusville Electric Light Co., recently mentioned, has been incorporated.

## GEORGIA.

Atlanta—Wagon Works.—The Florence Wagon Co., of Florence, Ala., will establish branch wagon works in Atlanta, as lately mentioned.

Atlanta—Paint Factory.—A. P. Tripod, R. G. Lowry, Charles Beerman and others have incorporated the Tripod Paint Co. to manufacture paints, etc. The capital stock is to be \$30,000.

Augusta—Candy Factory.—H. H. Clausen is reported as having established a candy factory.

Brunswick—Canning Factory.—J. A. Foster, E. A. McWhorter, R. King and others have incorporated the Cumberland Oyster Co. to can oysters. The capital stock is \$5,000.

Bunkley—Water Works.—A system of water works is reported as to be constructed on Cumberland island by the Cumberland Island Co.

Cartersville—Mineral Lands.—The Emerson Mineral Land & Town Property Co. has been organized for the purpose of developing mineral lands in Bartow county.

Cochran—Laundry.—A steam laundry may be established.

Columbus—Water Works.—It is stated that a syndicate is negotiating for the purchase of the Columbus Water Works at \$300,000.

Ellijsay—Mineral Land.—Eastern capitalists have, it is stated, purchased several hundred acres of iron, gold and marble land near Ellijsay and will probably develop same.

Ellijsay—Chair Factory, etc.—It is stated that a chair factory will be moved from Cortland, N. Y., to Ellijsay, and a barrel and general woodworking factory established.

Griffin—Handle Factory, etc.—A factory for the manufacture of plow stocks, handles, etc., is reported as in course of erection.

Gilmer County—Gold Mine.—A stamp mill is reported as to be erected at the Lucky Eight gold mine.

Hartwell—Cotton Gin.—J. R. Meyers and others have purchased and will probably operate the cotton gin of H. N. Ayres.

Louvale—Brick Works.—The Omaha Improvement Co., mentioned last week (under Stewart county), will build brick works.\*

New England Coal and Iron Mines.—The New England City Land & Improvement Co. is reported as developing its coal and iron mines.

Quitman—Land, Manufactories, etc.—H. M. Drane, of Savannah; J. K. Graves, of Dubuque, Iowa; J. G. McCall and others have incorporated the Columbia Investment & Construction Co. to deal in land, operate manufactories, etc. The capital stock is to be \$1,000,000.

Savannah—Electric-light Plant.—The Brush Electric Light & Power Co. will put additional machinery in its electric-light plant, as reported in last issue.

Tallapoosa—Cigar Factory.—G. P. Corvet, of Cleveland, Ohio, will, it is stated, start a cigar factory in Tallapoosa.

Tallapoosa—Manufacturing, etc.—The American Mining & Manufacturing Co. has been incorporated in Alabama with J. C. Kibler, president, and D. R. Keith, secretary, for manufacturing purposes. The capital stock is \$25,000.

Trenton Saw Mill.—W. H. Bowman has, it is stated, leased the Cureton saw mill, and will put in planing mill machinery.

## KENTUCKY.

Bardstown—Turnpike.—Martin Whelan, Joseph Magruder, B. J. Adams and others have incorporated the Irish Ridge Turnpike Co. to construct a turnpike.

Blaine—Oil Well.—The Vincent Oil Co. has sunk an oil well.

Cat Creek—Roller Flour Mill.—R. C. Mansfield will remodel his flour mill to the roller system, as stated in last issue.\*

Clay City—Mineral and Timber Land, &c.—F. D. E. E. and M. A. Carley have incorporated the Kentucky Title & Land Co. to deal in mineral and timber land, etc. The capital stock is \$10,000,000.

Clay City—Saw and Planing Mills, &c.—F. D. E. E. and M. A. Carley have incorporated the Kentucky Industrial Consolidation Co. to erect saw and planing mills, etc. The capital stock is \$1,000,000.

Cloverport—Machine Shops.—The Louisville, St. Louis & Texas Railway Co. (office, Louisville) is reported as putting \$5,000 worth of additional machinery in its Cloverport machine shops.

Covington—Bridge.—A stock company will probably be organized to build a bridge over the Licking river at Tenth street.

Frankfort—Chair Factory.—The Mason & Foard Co. will, it is stated, enlarge its chair factory.

Frankfort—Grain Elevator.—Chicago (Ill.) parties are reported as to erect a grain elevator in Frankfort.

Frankfort—Woodworking Factory.—A woodworking factory will probably be erected. Secretary Board of Trade can give information.

Greenup—Corn Mill.—J. M. Hill, of Ashland, will remove, it is reported, his corn mill to Greenup.

Henderson—Electric-light Plant.—The city will, it is stated, erect an electric-light plant. The mayor can give information.

Henderson—Hornmill.—T. & B. G. Hudant are investigating with a view of moving their Mount Vernon, Ind., hornmill to Henderson.

Louisville—Electric-light Plant, &c.—The Terascon Woolen Mills Co. has put additional machinery and an electric-light plant in its woolen mill.

Louisville—Saw Mill.—J. L. Berry has put new machinery in his saw mill, as recently reported.

Louisville—Boiler Works.—The Sulzer-Vogt Machine Co. is erecting a plant 168x113 feet for the manufacture of boilers.

Middlesborough—Coal Mines.—W. Y. Craig, of Newcastle, England; Henry Chester, C. F. De Sals and others are reported as having organized an \$825,000 stock company to develop Cumberland Gap coal.

Middlesborough—Coal Mines.—The Earl of Northumberland and the Duke of Devonshire will, it is reported, develop coal mines.

Middlesborough—Iron Works.—It is stated that the Middlesborough Town Co. will close contract for the transfer of another English ironworking plant to Middlesborough.

Middlesborough—Furniture Factory.—The stock company previously reported as organized by W. W. Denning, James Brown and others has been incorporated as the Rhodes Furniture Co. with a capital stock of \$20,000.

Middlesborough—Oil Wells.—N. L. Adams and L. C. Turley, of Portsmouth, have leased lands near Middlesborough and will, it is reported, sink oil wells.

Pikeville—Mineral Land, &c.—R. M. Ferrell, James Polly, James Hatcher and others have incorporated the Elkhorn Land & Improvement Co. for the purpose of developing mineral land, etc. The capital stock is \$200,000.

Pine Hill—Coal Mines.—William Mitchell, W. H. Strossman, E. M. Eaton and others have organized the Mitchell Coal & Mining Co. with a capital stock of \$75,000.

Winchester—Land.—L. T. Rosengarten, M. A. Carley and Charles Scott have incorporated the Kentucky Union Improvement Co. to deal in land, etc. The capital stock is \$50,000.

## LOUISIANA.

Alexandria—Broom and Duster Factory.—F. R. Watts, of Mandeville, contemplates establishing a broom and duster factory in Alexandria.

Baton Rouge—Cotton Sack and Pants Factory.—A jeans pants and cotton sack factory will be established, it is stated, at the State penitentiary.

Baton Rouge—Cotton Compress.—Mr. Fred, of Macon, Ga., has made a proposition to erect a cotton compress in Baton Rouge.

Brusly Landing—Publishing.—A stock company has been organized by S. C. and C. K. Schwing and others to publish the "Brusly Light."

Grand Prairie—Sugar Mill.—Alexander Mire is reported as having erected a sugar mill.

Houghton—Saw Mills.—Allen Bros. will, it is stated, build two saw mills on the line of the railroad reported elsewhere in this issue as to be built.

New Orleans—Sash and Door Factory.—The Louisiana Cypress Lumber Co. is reported as to erect a sash and door factory in connection with its saw and shingle mill at Harvey.

## MARYLAND.

Baltimore—Machine Works.—Detrick & Harvey have, it is stated, put new machinery in their machine works.

Baltimore—Electrical Works.—W. W. Donaldson, Roderick Macrae, A. H. Robertson and others have incorporated the Donaldson Macrae Electric Co. to manufacture electrical machinery. The capital stock is \$20,000.

Baltimore—Ice Factory.—E. D. Onion will erect a four-story ice factory 130x100 feet, with 100 tons capacity per day.

Baltimore—Lock and Safe Factory, etc.—W. F. Bensley, T. E. Barrett, George Warfield and others have incorporated the Safety Package Co. to manufacture portable safes, locks, etc. The capital stock is \$1,000,000.

Baltimore—Lumber Mill.—S. F. Ryland, Jr., Chauncey Brooks, W. B. Brooks, Jr., and others have incorporated the Ryland & Brooks Lumber Co. with a capital stock of \$50,000.

Baltimore—Dr. Jackson Piper, southeast corner Hanover and Baltimore streets, will put in a 10 horse-power steam boiler, and Charles A. Hulse, 731 South Charles street, will put in a 5 horse-power steam boiler.

Baltimore—Flour Mill.—The flour mill of J. O. Norris, reported elsewhere in this issue as burned, will be rebuilt.

Baltimore—Canning Factory.—Joseph Henry, J. M. Naill, W. H. Lamon and others have incorporated the Henry Brothers Co. for the purpose of canning fruit, etc. The capital stock is \$50,000.



**Calmarville**—Woolen Mill.—V. H. Blaede, Gustav Gieske, E. J. Farber and others have incorporated the Carroll Woolen Mills to manufacture cotton and woolen yarns, etc. The capital stock is \$10,000.

**Centerville**—Tongs Factory.—J. A. Lane & Co. will, it is reported, start the manufacture of oyster tongs.

**Crisfield**—Electric-light Plant.—The Crisfield Electric Light Co. has been organized with G. T. Atkinson, president; F. H. Coulbourn, vice-president, and L. E. P. Dennis, secretary, to erect an electric light plant. The capital stock is \$10,000.

**Cumberland**—Publishing.—H. W. Schaidt, Thomas Johnson, D. W. Sloan and others have incorporated the Daily News Co. to publish a newspaper. The capital stock is \$10,000.

**Hagerstown**—Electric-light Plant.—The Hagerstown Electric Co. has put additional machinery in its electric-light plant, as reported in last issue.

**Oakland**—Brick Works.—Brick works are reported as to be established on the line of the Oakland & Confluence Railroad.

**Sparrow's Point**—Ship-yards.—The Pennsylvania Steel Co. will increase its capital stock \$3,000,000 for the purpose of building the ship-yards previously mentioned.

**Washington, D. C.**—Plaster Works.—The Fitzgerald Patent Plaster Co. has been incorporated with Samuel Ross, president, and C. B. Peirson, vice-president. The capital stock is \$50,000.

#### MISSISSIPPI.

**Aberdeen**—Wagon Factory.—The Gibson-More Manufacturing Co. may start the manufacture of wagons in connection with its spoke factory, as recently stated.\*

**Hernando**—Planing Mill and Stave Factory.—A Memphis (Tenn.) party is investigating with a view of establishing a stave factory and planing mill in Hernando.

**Macon**—Cotton Gin.—Mat Mahorner will rebuild his cotton gin, reported last week as burned.

**Natchez**—Marble Works.—J. T. Whitehead, of Jackson, Tenn., is investigating with a view of establishing branch marble works in Natchez.

**Pascagoula**—Saw and Shingle Mill.—Jonas Green, of Mobile, Ala., is reported as having purchased from C. T. Irving his saw and shingle mill on Lowry Island for \$2,500, and will probably operate same.

**Rosedale**—Cotton Gin.—Charles Scott will rebuild his cotton gin, recently reported as burned.

**Starkville**—Fertilizer Factory.—The East Mississippi Fertilizer Manufacturing Co. is the name of the stock company previously reported as to be organized to manufacture fertilizers.

**Summit**—Cotton Factory.—The organization of a stock company to erect a cotton factory is projected.

#### NORTH CAROLINA.

**Asheville**—Land.—The Sunset Mountain Land Co. is reported as having purchased 455 acres of land near Asheville from W. B. Gwyn for \$152,000 and 53 acres from H. L. Taylor for \$23,000, for improvements.

**Asheville**—Woodworking Factory, Saw Mill's, &c.—The P. A. Demens Woodworking Co. has purchased, it is reported, the saw mills of Cushing & Chapman and will operate.

**Carthage**—Stone Quarries.—Colonel Evans, of Philadelphia, Pa., representing a syndicate, is reported as purchasing the brownstone quarries of L. Grimm and J. McL. Kelly near Carthage and as to develop same.

**Durham**—Canning Factory.—E. M. Graham has established, it is reported, a canning factory.

**Edenton**—Planing Mill.—A planing mill is reported as to be erected.

**Edenton**—Saw Mill.—D. W. Raper will erect, it is reported, a saw mill.

**Morganton**—Electric light Plant.—The Deurnant Cotton Manufacturing Co. will, it is reported, put an electric-light plant in its cotton mill.

**Murphy**—Lumber Mills.—The Hiwassee Lumber Co. has been organized to operate the lumber mills of Paddock, Lane & Co.

**Newton**—Spoke Factory.—The Newton Spoke Works are reported as putting in new machinery.

**Pittsboro**—Knitting Mill.—A stock company has been organized to erect a knitting mill.\* B. H. Moore, Jr. can give information.

**Raleigh**—Cigar Factory.—Another cigar factory will be established, it is reported.

**Raleigh**—Cigar Factory.—W. O. Robinson has, it is reported, established a cigar factory.

**Raleigh**—Knitting Mill.—A \$25,000 stock company will, it is stated, be organized to erect a knitting mill. The Raleigh Land & Improvement Co. can give information.

**Salisbury**—Ice Factory.—A \$15,000 stock company has been organized, it is reported, to erect an ice factory.

**Salisbury**—Shoe Factory.—A stock company is being organized with F. J. Murdoch, president, and W. L. Klutz, secretary, to establish a shoe factory.

**Weldon**—Electric-light Plant.—A company has made the city a proposition to erect an electric-light plant. S. P. Arrington can give information.

**Wadesboro**—Mill.—Y. C. Allen is reported as having remodeled his mill at Allen's Mill.

#### SOUTH CAROLINA.

**Abbeville** C. H.—Cotton Factory.—The organization of a stock company to erect a cotton factory is talked of.

**Anderson**—Wagon Factory.—The organization of a \$50,000 stock company to erect a wagon factory is proposed.

**Berkeley**—Lumber Mill.—The A. W. Taylor Land & Lumber Co. has increased its capital stock \$25,000.

**Blacksburg**—Gold Mines.—A gold mine is reported as being developed on the property of William Whisonant.

**Blacksburg**—Gold Mine.—It is stated that the Rosa Arrowood gold mine is being developed by Northern capitalists.

**Blacksburg**—Gold Reduction Works, &c.—Carroll & Ross are reported as developing the Wolf creek gold mine and as to erect gold reduction works.

**Charleston**—Fertilizer Factory.—J. L. Felder, W. V. Izlar and W. St. J. Jervay have incorporated the Piedmont Guano Co. with a capital stock of \$15,000 to erect the fertilizer factory previously mentioned.

**Columbia**—Medicine Factory.—The Wannamaker & Murray Drug Co. will probably increase its capital stock.

**Ridgeway**—Land Improvement.—R. M. Davis, of Columbia; J. Q. Davis, of Winnsboro; H. C. Davis, of Fortress Monroe, and others have incorporated the Ridgeway Improvement Co. to improve land, etc. The capital stock is \$10,000.

**Summerville**—Brick and Tile Works.—T. W. and S. H. Stanland and J. E. Martin, of Charleston, have incorporated the Summerville Brick & Tile Co. to erect brick and tile works. The capital stock is \$10,000.

**Sumter**—Ice Factory and Laundry.—The Sumter Ice Manufacturing Co., lately reported, has, it is stated, increased its capital at \$20,000 and will also erect a steam laundry.

**Sumter**—Real Estate.—J. S. Hughson, W. A. and A. S. Brown have incorporated the Northwest Side Land Co. to deal in real estate. The capital stock is \$30,000.

**Sumter**—Cotton Compress.—A. L. Brown is president, and A. K. Clark, secretary, of the Sumter Compress & Warehouse Co., previously reported.

**Sumter**—Electric-light Plant and Water Works.—The Sumter Electric Light Co. will put new machinery in its electric-light plant, as reported in last issue, and erect a tank for water supply.\*

**Union County**—Brick Works.—It is stated that brick works will be started at Lockhart shoals.

#### TENNESSEE.

**Bristol**—Furniture and Mattress Factory.—The Sweeney & Long Manufacturing Co. has established a furniture factory, as reported last week, and will operate mattress factory in connection with same.

**Bristol**—Foundry and Machine Works.—Mr. Farnsworth will, it is reported, organize a \$25,000 stock company to erect an iron foundry and machine shops.

**Bristol**—Real Estate.—The Terminal Investment Co. has been organized with N. M. Taylor, president, and F. T. Brinkley, secretary, to deal in real estate. The capital stock is \$100,000.

**Cardiff**—Iron and Nail Works.—The Cardiff Land Co. has purchased, it is reported, the iron and nail works of the South Tredgar Iron Co., at Chattanooga, and will remove same to Cardiff.

**Chattanooga**—Cider Factory.—Hervey & Holbert will, it is stated, erect a cider factory in Highland Park.

**Chattanooga**—Cotton and Woolen Mills.—Pennsylvania parties are reported as negotiating for the purchase of the Ruohs cotton and woolen mills and 80 acres of land, and if negotiations prove successful, the mills will be greatly improved and enlarged. M. M. Willhoite can give information.

**Chattanooga**—Brewery.—The Chattanooga Brewing Co., previously mentioned, will put in additional ice and other machinery, erect a new brew house 8 stories high and a new bottling house, also put in a complete outfit of new machinery for brew and bottling house at a cost of \$150,000.

**Chattanooga**—Gas Works.—It is stated that the Safety Car Heating & Lighting Co., of New York, and the Chattanooga Gas Light Co. will erect a \$25,000 plant for the manufacture of Pintsch gas.

**Chattanooga**—Electric-light and Power Plant.—The Thomson Houston Electric Co., of Boston, Mass., is reported as having secured site, and as to erect an electric light and power plant, 150x200 feet, in Chattanooga.

**Concord**—Marble Quarries.—Keller, Woolf & Co. are reported as developing marble quarries.

**Crossville**—Coal Mines.—Colonel Way is reported as developing coal mines near Crossville.

**Dunlap**—Coal and Iron Mines.—An English syndicate is reported as negotiating for the coal and iron properties of the Dunlap Coal & Iron Co. at \$4,000,000.

**Evansville**—Coal Mines.—Clark & Bell are reported as having leased the coal mines of W. Darwin & Sons, and as to develop same.

**Gallatin**—Cotton Mill.—Louis Rubin and others, previously reported as having purchased and to enlarge the Gallatin cotton mill, have organized the Nashville & Gallatin Manufacturing Co. with W. M. Duncan, president; B. Lanier, vice president, and Louis Rubin, secretary, all of Nashville, to operate it.\*

**Jasper**—Canning Factories.—Two canning factories will, it is stated, be established. The Jasper City Land & Mining Co. can give information.

**Jasper**—Ice Factory.—C. W. Bless, of Chattanooga, is reported as to establish an ice factory in Jasper.

**Jasper**—Gas Wells.—J. K. Alley is sinking gas wells.

**Jasper**—Ice Factory.—The Jasper Ice, Water & Cold Storage Co. is the name of the \$18,000 stock company recently stated as organized to erect an ice factory.

**Jasper**—Carriage and Wire Fence Factory.—The Bain Manufacturing Co. is reported as having been organized to establish a carriage and wire fence factory. The capital stock is to be \$30,000.

**Jasper**—Brick Works.—The Jasper Clay & Brick Co., with a capital stock of \$30,000, is reported as organized to build \$7,000 brick and clay works.

**Johnson City**—Land.—The Connecticut Land Co. has been organized with F. A. Stratton, president, and W. B. Hosmer, of Boston, Mass., vice-president. This company has, it is stated, purchased a part of the F. K. Mountcastle and the S. H. Ponder farms, and will improve same. The capital stock is \$5,000,000.

**Jonesboro**—Patent Medicine Factory.—A \$25,000 stock company has, it is reported, been organized to manufacture patent medicines.

**Knoxville**—Water Works.—The Knoxville Water Co. will, it is stated, issue bonds for the enlargement of its water works, previously reported.

**Lawrenceburg**—Land, &c.—The Lawrenceburg Land & Mineral Co. has been organized by Chicago (Ill.) parties to develop the town of Lawrenceburg. The capital stock is \$1,300,000.

**Lenoirs**—Cotton Mill.—The Lenoir Cotton Mill is, it is stated, being improved and new machinery put in, and will be operated. The Lenoir City Co. can give information.

**Mascot**—Steel Plant, &c.—Northern capitalists have purchased, it is stated, \$10,000 worth of land in and around Mascot, will build a new town and construct a steel plant.

**Memphis**—Concrete Works.—The Southern Concrete Post, Building & Paving Co., reported recently, will erect, in West Memphis, a factory for the manufacture of the patent concrete post.\*

**Memphis**—Electric-light Plant, &c.—The Empire Elevator, Mill & Warehouse Co. will erect an elevator, as stated in last issue, and contemplates putting in an electric-light plant.\*

**Nashville**—Ice Factory, &c.—Meadors & Osgood are building, it is stated, an ice factory with a capacity of 25 tons daily, also a fish house; total cost to be about \$46,000.

**Nashville**—Electric-light Plant and Machine Shops.—It is stated that the Nashville, Chattanooga & St. Louis Railroad Co. has completed the erection of its machine shops, and will put an electric-light plant in same.

**Nashville**—Flour Mill.—E. M. Kelley is president and E. C. Andrews, secretary, of the Liberty Mills Co., previously reported.

**Nashville**—Electric-light Plant.—The Capitol Electric Co. is reported as putting new machinery in its electric-light plant, and as to enlarge its Front-street station.

**Newport**—Electric-light Plant.—The Newport Electric Light & Power Co. has been incorporated.

**Newport**—Development.—The Newport Development Co. has been incorporated by W. A. McCrillis, of Boston, Mass.; W. J. McSweeney and others.

**Newport**—Woodworking Factories, Iron Works, &c.—J. B. Crawford, and C. S. Burke, of Boston, Mass.; G. A. Smith, of Philadelphia, Pa., and others have recently organized the Southern Iron & Timber Co., and will, it is stated, erect 6 woodworking factories, a tannery, shoe factory and a \$300,000 iron plant.

**Sequachee**—Shoe Factory.—A Northern company is reported as to remove its shoe factory to Sequachee. The Sequachee Valley Coal & Iron Co. can give information.

**South Pittsburg**—Medicine Factory.—T. S. Richards & Co. are endeavoring to organize the Providential Pile Preparation Co. with a capital stock of \$35,000 to establish a medicine factory.

**Tullahoma**—Gas and Oil Wells.—The Butler Oil & Mining Co., of Butler, Pa., previously mentioned, will, it is stated, sink gas and oil wells near Tullahoma.

#### TEXAS.

**Brownwood**—Cotton-seed Oil Mill, &c.—W. W. Roberts, of Tyler, and others, lately mentioned as organizing a \$30,000 stock company to erect a cotton compress, are also reported as to erect a cotton-seed oil mill.

**Chappell Hill**—Bridge.—A bridge will be built across Vega river.

**Chappell Hill**—Cotton Gin.—J. E. Routt will rebuild his cotton gin recently reported as burned.\*

**Childress**—Brick Works.—Brick works are reported as to be established.

**Corpus Christi**—Machine Shops.—The proposed Corpus Christi & South American Railway will, it is reported, erect machine shops in Corpus Christi.

**Dallas**—Refrigerator, &c.—The Butchers' Mutual Stockyards Refrigerator Co. has been incorporated with a capital stock of \$50,000.

**Dallas**—Soap Factory.—C. A. & M. L. Hill have erected a factory, as reported in last issue, for the manufacture of soap.

**Dallas**—Lumber Mills.—Pratt & Mundy, of Jefferson, and Orr & Perkins, of Dallas, are the incorporators of the Cypress Lumber Co., mentioned in last issue, and it is reported as erecting lumber mills. The capital stock is \$50,000.

**Dublin**—Ice Machine Works.—Jacob Schuehle will, it is stated, erect a factory for the manufacture of his patent ice machinery.

**Dublin**—Canning and Candy Factory.—The Dublin Canning & Manufacturing Co., mentioned in last issue, has increased its capital stock to \$30,000, and will at once build a canning and a candy factory.\*

**Fort Worth**—Electric Plant.—The Fort Worth Electric & Power Co. will, it is stated, increase the capacity of its electric plant.

**Fort Worth**—Candy Factory.—A. Baldoia has, it is stated, started a candy factory.

**Fort Worth**—Canning Factory.—A stock company will, it is stated, be organized to erect a canning factory.

**Fort Worth**—Machine Shops, &c.—The St. Louis, Arkansas & Texas Railroad Co. (office, St. Louis, Mo.) will, it is stated, erect roundhouse and machine shops at Fort Worth.

**Greenville**—Cotton Gin.—J. C. Dial & Son will probably rebuild their cotton gin, recently reported as burned.\*

**Llano**—Dam, &c.—The Llano Improvement & Furnace Co. is, it is stated having plans prepared for the construction of a dam for water-power purposes.

**Llano**—Machine Shops and Stove Foundry.—The Llano Improvement & Furnace Co. has, it is reported, contracted with an Ohio party for the erection of a \$100,000 machine shop and stove foundry in Llano.

**Llano**—Water Works and Sewerage System.—It is stated that M. L. Lynch, of Fort Worth, is preparing plans for the construction of water works and a sewerage system.

**Llano**—Granite Quarries.—The Llano Improvement & Furnace Co. is negotiating with Iowa parties for the organization of a stock company to develop granite quarries near Llano.

**Leon Junction**—Bridge.—Contract has been let for the construction of an iron bridge across the Leon river.

**Longview**—Steel Flow Works.—The Kelly Flow Manufacturing Co., mentioned last week, will soon rebuild its plant and add an outfit for the manufacture of steel flows.

**Mexia**—Electric-light Plant.—An electric-light plant may be erected. The mayor can give information.

**Orange**—Saw Mill.—The Star and Crescent Mills is reported as putting a band saw in its saw mill.

**Palentine**—Bed Spring, Chair and Mattress Factory.—A. H. & F. C. Bailey will erect a chair, bed-spring and mattress factory.\*

**Paris**—Implement Works and a Wagon Factory.—Eastern capitalists will investigate with a view of erecting agricultural implement works and a wagon factory.

**San Antonio**—Electric Plant.—The San Antonio Street Railway Co. is reported as having put additional machinery in its power house.

**Terrell**—Electric-light Plant.—The Terrell Electric Light Co., recently mentioned, has its plant erected and in operation.

**Texarkana**—Water Works.—W. L. Whitaker has purchased the West Side water works and franchise, as stated in last issue, and will improve, extend and operate same.

**Uvalde**—Asphalt Mines.—It is rumored that asphalt mines will be developed near Uvalde.

**Uvalde**—Real Estate, &c.—The Uvalde Real Estate & Building Co. has been incorporated with a capital stock of \$50,000.

**Victoria**—Electric-light Plant.—The Victoria Light, Power & Ice Co. will probably increase the capacity of its electric light plant.

**Waco**—Pecan Elevator.—Waco, Austin and Brownwood parties propose to organize the stock company to build a pecan elevator, lately mentioned.

Yoakum—Machine Shops.—The San Antonio & Aransas Pass Railway Co. (office, San Antonio) will build machine shops in Yoakum.

Yoakum—Water Works.—The city has contracted for the construction of water works, as stated in last issue, at \$50,000.

#### VIRGINIA.

Bedford City—Wire Fence Factory.—Colgate & Campbell are reported as having established a wire fence factory.

Big Island—Electric light Plant.—The Lynchburg Pulp & Paper Co., previously reported, will, it is stated, put an electric-light plant in its pulp and paper mill.

Blacksburg—Machine Shops.—The Virginia Agricultural & Mechanical College will put about \$10,000 worth of new machinery in its machine shops.

Clifton Forge—Land Improvement.—The Alleghany Construction & Improvement Co., with a capital stock of \$20,000, has been organized with J. C. Carpenter, of Frederick's Hall, as president; J. J. Boxley, of Trevilians, vice-president, and A. K. Bowles, secretary. The company has laid off the suburb of North View.

Farmville—Coal and Iron Mines.—The Farmville Coal & Iron Co., previously mentioned, has been organized with a capital stock of \$1,000,000. J. A. Sexton is manager.

Fredericksburg—Woodworking Factory.—Battle Creek (Mich.) parties are reported as taking a woodworking factory to Fredericksburg. The Fredericksburg Development Co. can give information.

Front Royal—Piano Factory.—The Leicester Piano Co., of Westboro, Mass., will erect, it is reported, the piano factory previously mentioned.

Gate City (P. O. at Estillville)—Brick Works.—The Gate City Land Co. has organized a stock company to establish brick works.\*

Glasgow—Grate and Mantel Factory, &c.—Danziger, Reiner & Strait, of Cincinnati, Ohio, will remove their grate and mantel factory to Glasgow, as reported recently. The Virginia Mantel & Grate Co. will operate it.

Glasgow—Car Works.—The Virginia Car Co., recently reported (under Buena Vista), has commenced work on the construction of its car works in Glasgow. The plant will be 95x80 feet.

Glen Wilton—Iron Furnace and Rolling Mill.—The Princess Iron Co., recently mentioned (under Iron Gate), will enlarge the Princess iron furnace and build a rolling mill.

Gordonsville—Head-rest Factory.—The Waddell Travelers' Head Rest Co. has been organized for the purpose of erecting a factory either in Gordonsville or Charlottesville for the manufacture of the Waddell patent head-rest.

Harrisonburg—Trunk Factory, &c.—A trunk factory, underwear factory and a paint mill are reported as to be established.

Harrisonburg—Electric-light Plant and Brick Works.—The Richmond & Harrisonburg Land Co., mentioned last week (under Richmond), will improve its land near Harrisonburg, erect an electric-light plant and probably build brick works.

Iron Gate—Car Works, Rolling Mill, &c.—The Richmond Standard Spike Works Co., of Richmond, is reported as having purchased the rolling mill at Iron Gate, as to enlarge same and erect spike mill and car works.

Ivanhoe—Pipe Works.—Philadelphia (Pa.) parties will, it is reported, build pipe works at Ivanhoe Furnace. The Ivanhoe Land & Improvement Co. can give information.

Lexington—Land.—The Rockbridge Alum Co. has been incorporated with Hon. Fitzhugh Lee, president, and W. G. McCormick, of Chicago, Ill., vice-president, to improve the Alum Springs property. The capital stock is \$500,000.

Lynchburg—Bridge, Land, &c.—The Garland Heights Improvement Co., mentioned in last issue as to purchase and improve the Buckner property and build an iron bridge across Black water creek, has been organized with R. H. F. Adams, president; W. S. Flanagan, of Florence, Ala., vice-president, and Camillus Christian, secretary.

Lynchburg—Foundry and Machine Shops.—The Cleland Machine Works Co. has been organized with C. P. Poole, president, and C. W. Poole, secretary, and is reported as having purchased the foundry and machine shops of James Cleland & Son, and as to enlarge and improve same.

Lynchburg—Tank Works.—J. D. Tanner will, it is stated, establish works for the manufacture of the J. T. Smite patent safety non-freezing tank for locomotives.

Manchester—Real Estate.—The West Manchester Land Co. has been incorporated with E. A. Saunders, president, and A. L. Adamson, secretary, who, with others, were previously reported as having purchased the Moody farm. The capital stock is \$300,000.

Manchester—Machine Shops and Roundhouse.—The Richmond & Petersburg Railroad Co. (office, Richmond) will, it is stated, erect new machine shops and roundhouse at Manchester.

Manchester—Land.—Oscar Swineford has, it is stated, purchased and will improve the old Brander tract of 100 acres of land near Manchester.

Mineral City (P. O. Louisa C. H.)—Iron Furnace and Reduction Works.—The \$500,000 stock company previously reported as organized to erect gold reduction works has been incorporated as the Boston & Louisa Development Co. This company is also reported as to erect a 100 ton iron furnace.

New Castle—Planing Mill, &c.—A planing mill and sash and door factory will, it is stated, be erected. The Junction City Land & Improvement Co. can give information.

New Castle—Steel Plant.—A steel plant is reported as to be established. The Junction City Land & Improvement Co. can give information.

Norfolk—Yarn Factory.—New York capitalists are reported as having organized a stock company to erect a \$250,000 yarn factory near Lambert's Point. The Norfolk Land & Development Co. can give information.

Norfolk—The Lambert's Point Water Front Co. has been organized with Hon. Barton Myers, president; R. H. Bond, of Baltimore, Md., vice-president, and F. M. Killam, secretary.

Norfolk—Water Works, Gas Works, &c.—The Norfolk & Eastern Investment Co. has been incorporated with J. Q. Hoyt, of New York, president; H. B. Colburn, of Bedford City, vice-president, and W. D. Pender, secretary, to deal in real estate, construct water and gas works, build factories, &c. It is stated that contract has been closed for the establishment of a \$300,000 industrial plant.

Portsmouth—Real Estate.—The Portsmouth & Norfolk Investment Co., reported in last issue as organized, has been incorporated.

Radford—Car Works.—Pennsylvania capitalists are investigating with a view to erect car works at Radford. The Radford Land & Improvement Co. can give information.

Richmond—Land.—The Brookland Land & Improvement Co. has been organized with J. H. Barton, president, and J. H. Harvey, vice-president.

Richmond—Publishing.—The German News Co. has been incorporated with G. A. Peple, president; Joseph Wallerstein, vice-president, and Christian Drste, secretary, to publish a German newspaper. The capital is to be not more than \$25,000.

Roanoke—Bridges.—The Norfolk & Western Railroad Co. has received contract, at \$167,19, for the construction of the iron work of the bridges recently mentioned.

Roanoke—Real Estate.—The North Roanoke Land & Improvement Co. has been incorporated with J. S. Simmons, president; N. Burruss, of Norfolk, vice-president, and E. E. Dawes, secretary, to deal in real estate. The capital stock is to be not less than \$20,000 nor more than \$50,000.

Salem—Stove Foundry.—A \$60,000 stock company from Ohio will, it is stated, erect the stove foundry previously reported, at a cost of \$20,000.

Staunton—Grain Elevator.—The Staunton Steam Roller Mill Co., lately reported, will, it is stated, erect a grain elevator with 50,000 bushels capacity.

Suffolk—Land.—The Seaboard Land Co. has been organized with Taylor Ellyson as president and Carlton McCarthy, secretary, both of Richmond. The capital stock is \$50,000.

Virginia City (P. O. at St. Paul).—The McQuail Coal & Coke Co., of Roanoke, will, it is reported, develop 300 acres of coal land near St. Paul, and build a new town to be called Virginia City.

Wadesborough—Stone Quarry.—Additional machinery is reported as having been put in at the Wadesborough brownstone quarry.

Wytheville—Brick Works.—S. B. Shipley, of Celina, Ohio, will, it is stated, remove his brick works to Wytheville. This is the Ohio party recently mentioned as negotiating.

#### WEST VIRGINIA.

Belleville—Iron Mines.—The Illinois & West Virginia Mining Co. has been organized with W. E. Stewart, president, to develop iron and manganese lands near Belleville. The capital stock is \$50,000.

Burning Springs—Pipe Line.—H. J. Fox and Louis Mueller, of Philadelphia, Pa., will, it is stated, construct a pipe line from Burning Springs to Parkersburg, W. Va.

Charlestown—Harness Factory.—Mr. Getz, of Pennsylvania, will, it is reported, establish a harness factory in Charlestown.

Charlestown—Electric-light Plant.—The Charlestown Construction Co., reported in last issue, has for its purpose the erection of electric light plants, etc.

Divis—Lumber Mills.—The Beaver Creek Lumber Co. is reported as putting new machinery in its lumber mills.

Huntington—Cigar Factory.—The American Union Cigar Co., of Pittsburgh, Pa., has made a proposition to remove its cigar factory to Huntington.

Mannington—Oil Wells.—The Mods Run Oil Co. has been incorporated.

Martinsburg—Land.—G. M. Bowers and J. B. Wilson, representing a Baltimore syndicate, are reported as having optioned the Roush property near Martinsburg.

Martinsburg—Manufacturing, etc.—J. B. Wilson, G. M. Bowers, N. D. Baker and others have incorporated the Martinsburg Mining, Manufacturing & Improvement Co.

New Milton—Planing Mill.—S. W. Neville has, it is stated, purchased the buildings of the New Milton Flour Mill Co. and will convert same into a planing mill.

Point Pleasant—Electric-light Plant.—D. S. Snyder will probably establish the electric light plant mentioned last week.\*

Shenandoah Junction.—It is reported that W. F. McCarty, of Hagerstown, Md.; B. R. Hutchcraft, of Knoxville, Tenn., and others have purchased about 1,000 acres of the Aglonby estate at Shenandoah Junction, and will build a new town.

St. Mary's—Gas and Oil Wells.—Elwood Hughes, William Breidenstein, A. F. Gasmire and others have organized the Hughes Oil & Gas Co. to sink oil and gas wells. The capital stock is \$14,000.

St. Mary's—Gas and Oil Wells.—Adam Hess, A. F. Gasmire, Asa Booth and others have incorporated the Hess Oil & Gas Co. to sink oil and gas wells. The capital stock is \$12,000.

St. Mary's—Oil Wells.—C. B. Hart, previously reported as to sink oil wells; C. W. Brockunier, G. W. Ross and others have incorporated the St. Mary's Oil Co.

Sutton—Saw Mills.—Pardee, Curtin & Co. will, it is stated, put new machinery in their saw mills.

Wheeling—Land Improvement.—A syndicate is reported as negotiating for the purchase of the Garden, Lasch and Duesch farms near Wheeling for the purpose of laying off a town site.

Wheeling—Refrigerator Factory.—Henry Brunnhaus is president, and P. B. Dobbins, secretary, of the West Virginia Universal Refrigerating Co., recently reported.

### Building Notes.

Anderson, S. C.—Warehouse.—The Farmers' Alliance of Anderson county contemplates organizing a stock company to build a warehouse at a cost of \$8,000.

Anniston, Ala.—Hall.—A five-story building to cost about \$25,000 is reported as to be built for the Young Men's Christian Association.

Arlington, Texas—Hotel.—The building of a hotel is talked of.

Ashland, Ky.—A branch of the Atlanta National Building & Loan Association of Atlanta, Ga., has been organized with T. K. Hunsaker, president, and R. I. Eads, secretary.

Baltimore, Md.—School Buildings.—The city council will probably be petitioned to appropriate \$6,000 for the enlargement of grammar school No. 17, \$6,000 for an addition to grammar school No. 17; also a sufficient sum to enlarge annex school No. 10.

Baltimore, Md.—Building permits have been granted to W. L. Robinson for a three-story brick building; to L. White for a two-story brick stable to cost \$12,000; J. R. Cullimore, for 16 two-story houses; O. H. Dickson, for a four-story brick building, and to the Cumberland Coal Co. for a two-story brick building.

Belton, Texas—College.—An addition to cost \$20,000 will, it is reported, be erected at the Baylor College.

Benton, La.—Courthouse and Jail.—It is reported that a courthouse and jail to cost not over \$25,000 will be built by Bossier parish.

Big Island, Va.—Hotel.—A hotel is reported as to be built. The Big Island Land & Improvement Co. can give information.

Brunswick, Ga.—City Hall.—Mr. Sharpe has contract for the erection of the city hall. Architect Eichberg prepared the plans.

Charleston, S. C.—Simons & Huger have furnished plans for the erection of a residence for S. W. Simons to cost \$5,000.

Charlestown, W. Va.—The Charlestown Construction Co. intends building dwellings.

Chattanooga, Tenn.—Hospital.—Architect Floyd has prepared plans for the erection of a two-story hospital building for Dr. E. E. Kerr to cost about \$27,000.

Cloverport, Ky.—Jail.—The erection of a jail is contemplated.

Comanche, Texas—Church.—The members of the Christian Church contemplate building an edifice.

Corinth, Miss.—Church.—J. P. Phillips has contract for building a \$6,000 edifice for the Baptists. Steam heating will be used.

Danville, Ky.—Opera-house.—It is proposed to organize a stock company to build an opera-house to cost from \$15,000 to \$20,000.

Danville, Va.—Hotel.—The hotel previously reported as to be erected will be known as the Hotel Burton. It will cost \$100,000. F. X. Burton can give information.

East Chattanooga, Tenn.—It is reported that a project is on foot for the building of a certain palace at an estimated cost of \$250,000.

Edenton, N. C.—Masonic Temple.—The Independent Order of Odd Fellows contemplates building a Masonic temple.

Emory, Texas—College.—It is reported that a college will be built.

Eureka Springs, Ark.—School.—The Interstate Summer Normal & Educational Assembly, of Eureka Springs, has been incorporated with Powell Clayton, president, for the purpose of erecting a school building. The capital stock is \$20,000.

Fort Worth, Texas—Depot.—It is reported that the Missouri, Kansas & Texas Railroad Co. (office, Parsons, Kans.) contemplates building a passenger depot and a freight depot.

Front Royal, Va.—Hotel, &c.—It is reported that the Mount Massanutten & Shenandoah Improvement, Land & Mining Co. contemplates building a hotel to cost \$150,000 and a soldiers' home with an endowment of \$300,000 at Samar-cand.

Georgetown, Texas—Church.—Harret & Bedford have secured contract for the building of an edifice for the Cumberland Presbyterian Church.

Graham, Va.—R. L. Gillespie will build a residence.

Harriman, Tenn.—Church.—The Universalists contemplate building a church. F. Schumacher can give information.

Harrisonburg, Va.—Hotel.—The Richmond & Harrisonburg Land Co. will build a hotel.

Jasper, Tenn.—A branch of the United States Building, Loan & Savings Association of Minneapolis, Minn., has been established in Jasper.

Johnson City, Tenn.—Church.—The Episcopalians contemplate building a church at Carnegie to cost about \$5,000.

Jordan, S. C.—School.—It is reported that a new building will be erected for the Jordan Academy. J. M. Knight can give information.

Lake Charles, La.—A branch of the N. W. South Building & Loan Association has been organized with C. Bunker, president, and A. L. Williams, secretary. The capital stock is \$50,000.

Laurens, S. C.—Church.—The Presbyterians contemplate building an edifice to cost from \$12,000 to \$14,000. J. O. C. Fleming can give particulars.

Lenoir, Tenn.—Hotel.—A hotel is reported as to be built. The Lenoir's City Co. can give particulars.

Little Rock, Ark.—W. J. Turner and J. M. Moore will, it is stated, erect a four-story building. The estimated cost is \$100,000.

McDavid, Fla.—Hotel.—The Milner Lumber Co. will rebuild its hotel, recently burned.

Middlesborough, Ky.—Church.—The members of St. Mary's Episcopal Church will build an edifice to cost about \$6,000. Rev. Dr. Sneed can give information.

New Berne, N. C.—H. W. Simpson has prepared plans for the erection of a two-story residence for J. R. D. Carraway.

Palestine, Texas—Church.—The members of the African Methodist Episcopal Church will build a new edifice.

Prince George C. H., Va.—Church.—The Presbyterians will build a church.

Punta Gorda, Fla.—Emerson, Hinckley & Tyler will, it is reported, build 50 cottages at once.

Richmond, Va.—Levy & Davis will remodel the Levy building at a cost of about \$10,000.

Richmond, Va.—A five-story building 75x100 feet will probably be erected for the Chamber of Commerce at a cost of about \$25,000.

Ridgeway, N. C.—C. P. Wray is reported as to erect a brick store building.

Riverton, Ala.—Warehouse.—James A. Foote, of Iuka, Miss., contemplates building a warehouse.\*

Roanoke, Va.—School.—It is reported that the Catholics will erect a building for an industrial school.

Savannah, Ga.—Church.—The congregation of the New Houston Street Methodist Church will build an edifice to cost about \$9,000. Rev. D. F. Riley can give particulars.

Selmer, Tenn.—Courthouse and Jail.—The McNairy County Real Estate & Improvement Co. has arranged with the county authorities to build a \$10,000 courthouse, and will receive bids until January 1, 1891, for erecting same. A jail is also to be built.

Sipe Springs, Texas—Church.—The Baptists contemplate building a church.

Springfield, Tenn.—J. E. Garner has awarded contract to H. H. Kirk for the erection of 13 business houses.

Spring Hope, N. C.—Church.—The Methodists contemplate building a church.

Summersville, S. C.—Hall.—Simons & Huger, of Charleston, have prepared plans for the building of a hall for W. H. Richardson.

Temple Hill, Ky.—School.—A two-story school building 24x40 feet is to be built. W. C. Conner can give particulars.



Union City, Tenn.—Church.—The Catholics contemplate building a church.

Uvalde, Texas.—The Uvalde Real Estate & Building Co. has been organized with a capital stock of \$50,000.

Warrenton, Ga.—A branch of the National Building Loan & Investment Co. has been organized by E. P. Heath.

Washington, D. C.—Hall.—Architect Fava is preparing plans for the erection of a music hall for Mrs. H. C. Metzger to cost about \$70,000.

Washington, D. C.—Stable.—C. A. Didden is preparing plans for the building of a stable 77x73 feet for the National Capital Brewing Co. to cost about \$20,000.

Washington, D. C.—James Brooks will erect a three-story dwellings to cost \$9,000; Joseph Bruden, a two-story dwellings to cost \$6,000; G. S. Cooper, a three-story brick dwellings to cost \$10,000; Samuel J. Prescott, a three-story houses to cost \$12,000; A. H. Lowery, a store and office building 25x125 feet to cost \$18,000, and William Winthrop, a four-story dwelling 39x54 feet to cost \$12,000.

Washington, D. C.—Warehouse.—W. B. Gray will probably prepare plans for building a seven or eight-story store and warehouse for Henry Strong. It is to have steam-heating apparatus, passenger and freight elevators.

Washington, D. C.—Hornblower & Marshall have prepared plans for the erection of a six-story apartment house for Mrs. C. E. Hopkins to cost \$30,000.

Waynesboro, Va.—The Waynesboro Building & Improvement Co. has been organized with T. H. Astrim as president. The capital stock is \$50,000.

Wheeling, W. Va.—Hospital.—It is reported that an addition will be built to the North Wheeling Hospital.

Winchester, Va.—School.—The board of trustees of the Shenandoah Baptist Association will erect a school building. A. G. Loving can give information.

Woodville, Texas.—Courthouse.—The erection of a courthouse is probable.

Wytheville, Va.—Hotel.—The Wytheville Development Co. will, it is reported, build another hotel to cost \$30,000.

#### BURNED.

Baltimore, Md.—The flour mill of J. O. Norris; estimated loss \$1,000.

Bayou LaBatre, Ala.—The saw mill of Elliott & Carles; estimated loss \$8,000.

Big Stone Gap, Va.—The lumber mill of G. E. Dutton.

Dublin, Ga.—The Dublin Steam Laundry.

Franklin, N. C.—The saw mill of H. E. Turnbull damaged by a boiler explosion.

Houma, La.—The sugar refinery on the Pontchartrain plantation; estimated loss \$30,000.

Jeanerette, La.—The sugar-house of Delgado & Co.; estimated loss \$55,000.

Legrand, Ala.—The cotton gin and grist mill of Underwood & Co.

Marion, S. C.—The cotton gin of the Marion Oil Mill.

Middletown, Md.—The Middletown Creamery; estimated loss \$15,000.

Orangeburg, S. C.—The cotton gin of W. A. Champney.

Plaquemine, La.—The shingle mill of the Plaquemine Lumber & Improvement Co.

St. Augustine, Fla.—The saw mill of the East Florida Land & Produce Co., in Buena Esperanza; estimated loss \$110,000.

St. Elmo, Tenn.—The factory buildings of the Chattanooga Medicine Co.; estimated loss \$40,000.

Waco, Texas.—The flour mill of Mann Bros.; estimated loss \$30,000.

Western Port, Md.—The water station and oil-house of the West Virginia Central & Pittsburgh Railroad Co. (office, Cumberland) near Western Port.

Wheeling, W. Va.—The saw mill of John Zevley near Wheeling; estimated loss \$5,000.

The cotton gins of J. W. Jones, near Gainesville, Texas; George Lane, in Wayne county, N. C.; J. W. & N. Grant, near Graysburg, N. C.; Mr. Speer, at Memphis, Tenn.—estimated loss \$40,000; W. G. Hally, at Spring Hope, N. C.; S. W. Ipork, near New Berne, N. C.; Mrs. C. A. Powledge, near Wacochee, Ala.; George Stewart, near Summit, Miss.; Thomas Moore, near Griffin, Ga.; Mrs. K. C. Garson, near Orrville, Ala.; and A. D. Hemming, at Wellborne, Fla.—estimated loss \$8,000.

#### Music in the Air at Florence, Alabama.

[Florence Times.]

A band from Memphis furnished music for the land sale concert. There was a good deal of music in the air besides that furnished by the brass instruments.

## LAWRENCEBURG, TENN.

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[Special Cor. MANUFACTURERS' RECORD.]

LAWRENCEBURG, TENN., Nov. 20, 1890.

One of the significant signs of the times is the investment of Chicago capital in the work of developing the South's resources, and Lawrenceburg and its vicinity are naturally well pleased that this section should be among the very first to attract the capitalists of the Northwest. The Lawrenceburg Land Co. was originated in Chicago, and an excursion party of some fifteen interested directors and stockholders has been spending the past few days in inspecting the company's extensive holdings here, and in examining the wonderful mineral, agricultural and other resources of this region. Visits were made to the ore banks near-by, to the factories and mills adjacent, an auction sale of lots was held for an hour and a-half just to give an idea of the way the plan is worked, and after a three days' sojourn the party returned home very much impressed and delighted by everything they have seen, both in the way of present development and future possibilities.

And, indeed, the prospect is a most pleasing one. While it is not the aim of the company to present to the world alluring pictures of Lawrenceburg as the future metropolis and manufacturing center of the entire New South, yet so many advantages of mineral and timber wealth, soil, climate and health are possessed by the little city that it is expected and confidently believed by all who have familiarized themselves with the situation that here will steadily rise up a busy, prosperous city many times its present population, where will be found numerous small and diversified industries, a commercial trading point of constantly increasing importance, an educational center of recognized high standing, and a health resort of continually growing popularity.

Lawrenceburg is not a new name on the map of Tennessee. Forty-five years ago, before the Louisville & Nashville Road was built, it was the principal town south of Nashville, and was the commercial center of a large and fertile district. It had nine cotton mills, two woolen mills, a large number of other industries and two banks. Here was the home of that intrepid soul and gallant hero, old Davy Crockett, and while he was a factor in the industrial activity and commercial progress of the place, it maintained its prestige as the trading center of this whole region. After he had yielded up his life in defense of the famous Alamo, and after other towns had begun to secure supremacy, the construction of the railroad from Nashville south was secured by a city 20 miles to the east. Lawrenceburg, then unable to compete with her more favored neighbors, began to decline as a commercial and industrial point, and it was not until the construction, four years ago, of a railroad from Nashville to Florence and the South via Lawrenceburg, that the old town began to take on new life and activity. The attention of outside capital was then attracted to the numerous geographical, geological, agricultural and climatic advantages which Lawrenceburg possessed, and several months ago the Lawrenceburg Land Co. was organized in Chicago with a capital of \$500,000 for the purpose of developing some of the many resources which belong to her and to the country immediately adjoining. Several hundred acres of the best located lands immediately adjacent to the old city limits and along Shoal creek were secured for manufacturing sites, mill sites, residences, college and hotel grounds, and large tracts of mineral and

timber lands are also included in the company's holdings. Considerable work has been done in the way of improving the company's town property, and a large force of workmen will be kept at work all winter laying out streets, grading and putting the grounds in first-class shape. These lands adjoin the railroad for a distance of about a mile, and along this railroad front it is proposed to locate manufactories, warehouses and business blocks. Farther back the ground rises to a beautiful eminence, overlooking the entire city, and on this property will be located the finer residences, a new hotel on the clubhouse plan, and the sanitarium to which the uniform salubrity of this climate so admirably adapts the location. There is an elevation here of some 1,300 feet; the seasons—and there are four of them here—are never accompanied by rapid changes of temperature, nor are extremes of cold and heat ever experienced. Fevers are unknown, it being a notable fact that Lawrenceburg has always thrown her doors open for the terror-stricken patients and refugees from the danger which has overwhelmed some sections of the South during visitations of epidemics in times past. For this and other reasons it is expected that Lawrenceburg will some day become as famous and popular a health resort, both in winter and summer, as are any sanitariums in the South to-day.

Approaching the clear, spring-fed stream of Shoal creek is a beautiful tract of ground which will be laid out as a park. Along the stream are numerous places where fishing and boating will be arranged for, and adjoining the company's property is a large dam and mill-site which affords the best of water-power, for the use of which in manufacturing enterprises the land company has made very advantageous arrangements.

There is no reason why the Lawrenceburg of to-day need not far outshine the glory ever achieved before. Near-by are ore banks which supply even the famous furnaces of Florence, and there have been still further discoveries very recently of large bodies of fluxing limestone, bearing 33 per cent. of metallic ore. Manganese, limestone and granite abound, and within the four counties, for which Lawrenceburg is the shipping and distributing center, there are 1,200,000 acres of virgin hardwood timber, oak, hickory, popular and chestnut being the predominating varieties. To the north is the finest blue-grass agricultural region in the world, and with all these advantages there is every reason to expect that in the near future the number and variety of industries interested here will double and quadruple many times.

It is the policy of the land company to encourage and foster the establishment of all the smaller industries which can legitimately find a field for enterprise here. The management proposes to be active, yet conservative, and they are prepared to donate sites and take stock in every substantial industry which feels disposed to locate. There are two cotton factories here, and there is room for a dozen others. A furniture factory has just been located, and several more could be advantageously operated. A carriage factory is in contemplation, and a sash and door factory is already established. In all the lines of woodworking, hub and spoke factories, bending works, butter bowls and dishes making, bucket and barrel factories, school desk works, etc., a fine field exists.

Being situated 90 miles south of Nashville, blessed with all the above enumerated natural resources, with as fine free-stone and mineral waters as can be found anywhere, possessing advantages in the way of health, climate, old established society, churches, high-grade free schools, normal institutes and universities, established and in prospect, it is no wonder that

the Northwestern investors are delighted with their purchases, nor that all who investigate the situation are free to predict a glorious commercial, industrial, educational and social success for the rejuvenated little city of Lawrenceburg, Tenn.

ALBERT PHENIX.

## THE SOUTH'S WELL-ROUNDED GROWTH.

Editor McClure's Impressions of His Last Visit to this Favored Section.

Col. A. K. McClure, editor of the Philadelphia Times, who has just returned from a Southern trip, publishes the following as a leading editorial in his paper:

"A recent hasty visit to some of the leading centers of industry in the Southern States east of the Mississippi, demonstrated the wonderful progress the South is making in every line of industry. If the people of the North understood the material interest of the South as they really are, and appreciated the steady and rapid advancement not only in the development of the mineral wealth of those States, but also in the growth of agricultural interest, it would be of priceless benefit to both sections.

The Montgomery Exposition, now just closed, was a most interesting study to any Northern visitor who has been accustomed to the State Fairs of Pennsylvania. It exhibited the remarkable progress that the South is making in the cultivation of the fertile lands of that region. We have seen many State exhibitions of the agricultural products of Pennsylvania, where we point with just pride to our excellent farms, but we never witnessed a display of the products of the field that equaled the display of the farmers of Alabama.

The common idea of the North is that the industrial progress of the South is wholly or chiefly in the coal, iron, etc., of that section, but it is a grave error. Our people know of Birmingham and the many other industrial centers which have sprung up as if by magic because of the development of iron, coal, etc., but the very important fact is very generally overlooked that the advancement of agriculture in the South is fully abreast with the growth in other industries. In all the Southern States east of the Mississippi, from the Virginias and Kentucky down to the Gulf, there has been a rapid growth in the farming industry. The old system of large plantations is rapidly yielding to small farms purchased or leased by both races who work their own fields, and the result is that the products of the land are doubled or trebled by the better tilling that prevails.

Ten years ago the Times pointed out the advantages of the South over the West for farming emigration, and each year has proved more clearly the wisdom of that suggestion. There are to-day cheaper and more productive lands, with better climate and access to markets, in all the Southern States east of the Mississippi, including Alabama, Florida and Mississippi, than can be found in any of the Western States. Georgia was the earliest of the reconstructed States to advance in agriculture, but the Virginias, the Carolinas, the Gulf States of Florida, Alabama and Mississippi, and Tennessee and Kentucky have all advanced in rapid strides, and the old plantation system has almost entirely disappeared before the progress of better methods of cultivation.

Even in Mississippi, where there is little or no mineral development to attract the capital and skilled labor which so speedily transform every community in the South where they locate, there is now visible and substantial advancement. The city of Meriden, with only agricultural wealth to quicken its growth, to-day exhibits more energy, more progress and better architecture than can be found in any of our agricultural towns in Pennsylvania, and

capital is as safely invested there as in any section of the North and at increased rates. The growth of agricultural advancement is naturally slower than the growth of communities created by mineral development, but the one most gratifying prospect in the South now is the positive, steady and substantial improvement of the vast agricultural resources of the reconstructed States.

Alabama logically leads her sister States of the South in the development of wealth, because there is no State in the Union with an equal combination of wealth in field, in forest, in mine, in mill and in natural highways to the markets of the world, and it is specially gratifying to note that while her cities, suddenly created by her profusion of iron, coal and limestone in close proximity, have sprung up in startling suddenness, but on sure foundations, her fertile lands, capable of outstripping Pennsylvania in wheat and corn and equaling any State in cotton, have made her agricultural industry rapidly advance in both product and profit, and her forests of virgin timber are now greatly swelling the wealth of the State.

Ten years ago Birmingham, the first of the iron centers of the far South, was a straggling village skirted with forest, and conservative business men feared the permanency of its growth; but to day it is a substantial city of 30,000, with infant cities springing up around it, and business credit is now as well established there as it is in conservative Philadelphia. Nor is Birmingham alone as a landmark of industrial growth. A score of industrial centers have grown up in Alabama, as well as other scores in Georgia and Tennessee, with Atlanta and Chattanooga as their centers, and all of them give every evidence of certain, safe and marvelous advancement.

It is a fact not generally understood in the North that the industrial growth of the Southern States east of the Mississippi, and especially the agricultural growth, has been more rapid, more substantial and more satisfactory to emigrants than the industrial growth of the new States of the West. The climate is more salubrious; the access to markets is vastly better; the certainty of crops is much greater, and the variety of products is many times multiplied. Indeed, if the industrial people who start from the Eastern States to find new homes for their families in new sections of the country were intelligently advised of the countless advantages the South offers them over the far Western States, the whole tide of industrial emigration would speedily turn from the boasted sway of empire toward the setting sun and settle down in the Sunny South. It must be so sooner or later, and soon at the latest; and the sooner it is so the sooner will our migrating industrial people best employ their opportunities."

THE Southern Iron & Timber Co., of Newport, Tenn., is virtually a New England enterprise, because most of its capital comes from there, and the majority of its officers are Northern men, the president being Mr. J. B. Crawford, of Boston. Philadelphia capitalists are also represented in this enterprise, not only in their ownership, but in their official relations to it. Among them are the following well-known gentlemen: George A. Smith, vice-president, and Philip T. South, secretary. This company owns 30,000 acres of land in the county Cocke, of which Newport is the capital. In that county are manganese mines belonging to the company and other valuable ores that may be made the basis of a very considerable development. Besides these there is said to be an abundance of valuable timber. The Newport Development Co. proposes to utilize the natural advantages of the section surrounding it for all they are worth, and to give to manufacturers every facility the most unreasonable would dare to ask. Water-powers, fine iron ores, splendid timber in the forests, are the inducements offered to those who desire to make a beginning in the South.

## NEW ENTERPRISES AT TREDEGAR

TREDEGAR (P. O. Jacksonville), ALA., }  
November 22, 1890. }  
*Editor Manufacturers' Record:*

A company has been organized to erect an ice factory in Tredegar, and it will be built this winter. We will need a complete outfit. A large yard for builders' supplies, cement, plaster, lumber, lime, shingles and heavy building material is now being organized by the Tredegar Building Supply Co. Water works are also being enlarged to meet wants of rapidly increasing population.

### Hagerstown, Md.

The growth and development of Hagerstown, the activity of all classes of labor and industry, and the marvelous progress of business, increase of population and growth of manufactories in the last six months is manifest to the most skeptical citizens of the place. The effect is observed, and where there is effect there must be cause. The movement to boom Hagerstown and push her to the front has been eminently successful. The Hagerstown Mining, Manufacturing & Land Improvement Co. deserves a great share of the credit and praise for the bold effort and stand she took from the first. The formation of other companies in this city is proof of the genuineness of the undertaking. At the time of the formation of the Hagerstown Mining, Manufacturing & Land Improvement Co. far lands immediately adjacent to Hagerstown were worth from \$90 to \$200 per acre. Real estate in the city brought only reasonable figures. At these rates the Land Co. secured options on 1,000 acres in and around Hagerstown, and since then real estate within the city limits and farming lands adjacent to it have advanced rapidly in value. As much as \$771 per acre has since then been paid for land occupying no better nor advantageous a location than that obtained by this company at the figure named. The manufacturing facilities offered by Hagerstown are quite exceptional, and, situated as it is at the gateway of the Shenandoah valley, and connected with points in all directions by its five railroads, bringing fifty trains daily, its future as a center of trade is assured. The city council, which met last Monday evening, the 24th inst., agreed to grant all the privileges requested by the promoters of the new electric railway, and a few months will see this enterprise in active operation. The third grand sale of lots will take place at Hagerstown on December 9th and 10th, particulars of which may be obtained of J. Glenn Cook & Co., Bank of Baltimore Building, Baltimore.

AN advertisement in this issue presents an opportunity for obtaining an interest in planing mill and variety works and an electric company established at Thomasville Ga. Both concerns are enjoying an extensive trade, and the location has good shipping facilities which will be greatly improved by the railroads now being built, making Thomasville a prominent distributing point. The sale is made owing to the ill health of the proprietor, Mr. W. H. Reynolds.

THE Virginia & Tennessee Coal & Iron Co., of Abingdon, Va., offers for lease in our columns 50,000 acres of coal and iron lands situated in Wise and Dickenson counties, Virginia, about 20,000 of which are located adjacent to the Clinch Valley extension of the Norfolk & Western Railroad, which is completed to the coal field. The property is said to average three seams above water level, ranging from 4 to 8 feet in thickness, and the company confidently asserts the coal to be unexcelled for coking, gas, steam or domestic purposes. It is desired to lease in tracts of 500 to 1,000 acres, and the company solicits an examination of the field.

## MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Barges.—The Aberdeen Coal & Mining Co., Morgantown, Ky., wants four second hand barges; capacity 4,000 or 5,000 bushels of coal.

Bed-spring Factory.—A. H. & F. C. Bailey, Palestine, Texas, want machines for weaving woven wire bed springs and coil wire bed springs.

Belting.—R. C. Mansfield, Cat Creek, Ky., wants belting.

Boiler and Engine.—The Sumter Electric Light Co., Sumter, S. C., will purchase a 100 horse-power boiler and a 75 horse-power engine.

Boiler and Engine.—W. H. Sawyer, Centenary, S. C., wants prices on a 6 horse-power engine and an 8 horse-power boiler.

Boiler and Engine.—The Dublin Canning & Manufacturing Co., Dublin, Texas, will purchase boiler and engine.

Boiler and Engine.—J. E. Routt, Chappell Hill, Texas, will want a 25 or 35 horse-power boiler and engine.

Boiler.—C. D. Woodbury, Bogue Chitto, Miss., wants a tubular boiler, 54 inches by 12 feet.

Brick Machinery.—The Omaha Improvement Co., Louvale, Ga., wants improved brick machinery.

Brick Machinery.—W. A. Wilson & Co., 97 Gay street, Knoxville, Tenn., will want a complete outfit of brick-making machinery.

Brick Machinery.—H. S. Kane, Estillville, Va., wants brick machinery.

Candy Factory.—The Dublin Canning & Manufacturing Co., Dublin, Texas, will purchase machinery for a candy factory.

Canning Factory.—The Dublin Canning & Manufacturing Co., Dublin, Texas, will purchase machinery for a canning factory.

Concrete Machinery.—V. A. Cordes, Memphis, Tenn., wants machinery for manufacturing concrete.

Corn Mills.—R. C. Mansfield, Cat Creek, Ky., wants corn mills.

Cotton Gin.—J. C. Dial & Son, Greenville, Texas, will want a complete cotton gin outfit.

Cotton Gin.—J. H. Walk and Jerry Fanlon, Walk, Texas, will purchase a cotton gin outfit.

Cotton Gin.—J. E. Routt, Chappell Hill, Texas, will probably want cotton gin machinery.

Cotton Mill Machinery.—The Nashville & Gallatin Manufacturing Co., Gallatin, Tenn., will want a cloth folder, brushing machine and colender.

Dummy Engine.—The Oxford Lake Line, Oxford, Ala., will purchase a dummy engine.

Electrical Railroad.—Frank Carter, 12½ East Alabama street, Atlanta, Ga., wants estimates for the construction and equipment of 6 or 7 miles of electrical railroad.

Electric-light Plant.—D. S. Snyder, Point Pleasant, W. Va., wants an incandescent electric-light plant.

Electric-light Plant.—The Empire Elevator, Mill & Warehouse Co., Memphis, Tenn., may want estimates on an electric-light plant.

Electric Machinery.—The Sumter Electric Light Co., Sumter, S. C., will purchase a 300-light incandescent dynamo.

Elevator.—S. T. Frew & Co., Rock Hill, S. C., want a furniture elevator, new or second-hand.

Engine.—D. S. Snyder, Point Pleasant, W. Va., wants a second-hand 70 to 85 horse-power engine.

Exhaust Fan.—The Dawson Variety Manufacturing Co., Dawson, Ga., wants a No. 1 exhaust fan.

Flour Mill.—W. S. Hiller & Co., Ballinger, Texas, want complete outfit for a 30-barrel roller flour mill.

Flour Mill.—R. C. Mansfield, Cat Creek, Ky., wants roller flour mill machinery.

Foundry and Machine Shop.—The Tombigbee Iron Works, Aberdeen, Miss., wants machinery for foundry and machine shop.

Foundry.—B. D. Hurd, Stuttgart, Ark., wants a drilling machine and an iron-turning lathe.

Freight Hoist.—The Omaha Improvement Co., Louvale, Ga., wants a freight hoist for use on boats.

Grist Mill.—J. E. Routt, Chappell Hill, Texas, will probably want grist mill machinery.

Handle Machinery.—J. W. Dargan, Florence, S. C., wants prices on handle machinery.

Heating Apparatus.—J. H. Windrim, Washington, D. C., will receive proposals until December 9th for the labor, material and fixing in place complete the low pressure, return circulation steam heating and ventilating apparatus for the United States courthouse at Augusta, Ga.

Hoisting Cars.—J. A. Foote & Co., Iuka, Miss., want hoisting cars and winding drums.

Hoisting Engine.—J. A. Foote & Co., Iuka, Miss., want a 10-horse-power hoisting engine.

Ice Machinery.—Machinery for an ice factory will be needed. Address J. W. Burke, Jacksonville, Ala.

Knitting Machinery.—B. Noe, Jr., Pittsboro, N. C., will want knitting machinery.

Lath and Shingle Mill.—E. J. Carter, Killmar-nock, Va., wants a shingle and lath mill.

Lath Machinery.—C. D. Woodbury, Bogue Chitto, Miss., wants lath machinery.

Lathe.—The Smith Sons Gin & Machine Co., Birmingham, Ala., will probably purchase a 3-inch by 12 or 14 feet screw-cutting engine lathe.

Machine Shops.—H. M. Cowles, Baltimore, Md., will receive proposals until December 1 for furnishing the Baltimore Manual Training School with a blower, exhaust fan, 3 anvils, cornice brake, 3 double steaming stakes, 4 lathes, 1 emery grinder and sundry tools for forge and pattern shops.

Mattress Factory.—A. H. & F. C. Bailey, Palestine, Texas, want excelsior machines for cutting wood fibre for mattress filling.

Picking Machinery.—A. H. & F. C. Bailey, Palestine, Texas, want machines for picking cotton, hair and moss.

Rails.—J. A. Foote & Co., Iuka, Miss., want 1,000 feet of T iron rails.

Reduction Machinery.—The Florence Silica Works, Cumberland, Md., wants machinery for reducing hard sand rock to sand.

Roofing.—J. A. Foote & Co., Iuka, Miss., want about 80 squares of iron roofing.

Shafting, &c.—R. C. Mansfield, Cat Creek, Ky., wants shafting, hangers, pulleys, &c.

Wagon Machinery.—The Gibson-Moore Manufacturing Co., Aberdeen, Miss., may want wagon and wheel machinery.

Water Works.—W. K. Cardwell, mayor, Harrodsburg, Ky., wants bids for the construction of water works.

Wheels.—The Manly Manufacturing Co., Dalton, Ga., wants catalogues and prices on broad tire iron wheels, 3 to 6 feet diameter.

Wire Rope.—J. A. Foote & Co., Iuka, Miss., want 600 feet of wire rope.

Woodworking Machinery.—Fitzgerald & Yarbrough, North Danville, Va., want a panel-raising machine.

Woodworking Machinery.—B. D. Hurd, Stuttgart, Ark., wants band saw, cut-off saw, horizontal borer, sash and door mortiser, and wood-turning lathe, 18-inch swing.

Woodworking Machinery.—The Morgan Iron Works, Spartanburg, S. C., wants catalogues of machinery for manufacturing building material.

Woodworking Machinery.—J. D. Miller, Tallapoosa, Ga., wants a 36-inch resaw, a 4-tided planer, a weather-boarding machine and other woodworking machinery.

## The Hon. W. E. Gladstone on the South.

In his acknowledgment of a copy of their Manual of Investments which was forwarded to him by Messrs. John L. Williams & Sons, bankers, of this city, the Right Honorable William E. Gladstone uses the following language in regard to the South and its development: "The time may come when your wealth will overflow into other lands. For the present your vast powers of production, which the South appears likely so much to enlarge, will not disclaim extraneous aid, and I feel how great in this point of view is the importance of the work which I owe to your kindness."—Richmond Dispatch.

MR. J. WARREN COLEMAN, JR., well known to the readers of the MANUFACTURERS' RECORD as the popular and successful manager of the Stillman House, Cleveland, Ohio, for several years past, has recently become one of the new proprietors of the National Hotel of Peoria, Ill., the best hotel in that city, and one sure to become famous like the Stillman under the untiring energy of Mr. Coleman, who comes of the old Coleman family of hotel fame, who know how to cater to refined tastes in the most elegant and artistic manner. Mr. Coleman has many friends in the South.



# Hercules Ice Machines

FOR

Ice Making, Cold Storage, Packing Houses, Breweries, &amp;c.

Send for our new illustrated circular.

Hercules Iron Works, - - - Chicago, Ill.

## FIRE! FIRE!! FIRE!!!

On November 6 the manufacturing part of our works was almost totally destroyed by fire. The unprecedented heavy trade for the entire season found us short on stock and long on orders. Fortunately we had already purchased a site commensurate with the demands for Nubian at Cragin, a Chicago suburb, to which we anticipated moving in a few months. Our fire will simply expedite this removal. We have a full force at work, and expect by November 15 to 20 to commence filling orders. In the meantime we beg our customers to have a little patience. We will divide up what stock we have, so as to give everybody a little. Thanking you for past favors and assuring you we will endeavor to merit a continuance, we are,

Very truly,

## THE NUBIAN IRON ENAMEL CO.

163 Sangamon St., Chicago.

Collins Supply Agency, Louisville, Ky.

## THE FRED. W. WOLF COMPANY,

Sole American Manufacturers of

## The Linde Ice & Refrigerating Machinery.

FACTORY:

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Brewery Work and Cold Storage our Specialty. Plans and Estimates Promptly Furnished.

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## ARCHITECTS

Rooms 916-919, 218 LaSalle Street, Chicago,

Special Designers of Industrial Plants.

Completely Equipped Shops, Foundries, Warehouses, Cotton and Woolen Mills, Grain Elevators, &amp;c.

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ARCHITECTS and MILL ENGINEERS  
PROVIDENCE, R. I. Plans, Specifications and  
Estimates furnished for Cotton and Woolen Mills



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COTTON MILL

### Architects and Engineers,

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### CONTRACTORS

This Machine Moves Dirt 2 Cents Per Yard.



PRICE ONLY \$250. For particulars write to

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### LOCKWOOD, GREENE & CO.

Mill Architects and Engineers,

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SPECIALTY:

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Plans executed for the best modern mill construction. Especial attention given to arrangements of power plants, shafting, etc.

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Water Works, Sewerage, Electrical

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Superintendent Knoxville Water Co.

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### WANTS.

**WANTED.**—TO EMPLOY A MAN who has a thorough knowledge of Broom Making. Address **PIEDMONT BROOM WORKS**, High Point, N. C.

**POSITION WANTED BY A PRACTICAL MACHINIST AND DRAUGHTSMAN.** Eighteen years' experience as Foreman in a Machine Shop. Competent to Design and Construct Machinery. Address "MACHINIST," care Manufacturers' Record, Baltimore, Md.

**A COMPANY** having been formed in Harrison, Tenn., to operate a Steam Laundry are desirous of securing the services of a **PRACTICAL LAUNDRYMAN** as Manager on a salary. One who would be willing to invest from \$200 to \$300 in company's stock preferred. Address, giving experience and references, **HARRIMAN STEAM LAUNDRY COMPANY**, Harrison, Roane Co., Tenn.

B. J. DASHIELL, Jr.

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CONSULTING AND CONTRACTING ENGINEER,

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RAILROADS.

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—PHILADELPHIA, PA.

General Chemical and Metallurgical Works, Gas Furnaces and Gas Producers. Examination of Mineral Lands. Chemical and Metallurgical Analyses of every description. Chemical Investigations and Reports

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Analytical &amp; Consulting Chemists.

Chemical Analysis of Iron Ore, Pig Iron, Steel,

Limestone, Coal, Mineral Waters, Fertilizers, &amp;c.

Physical Tests of Iron, Steel and other Building

Materials and Lubricating and Illuminating Oils,

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Office and Laboratory, 17 W. Third St., Cincinnati, O.

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1826 Third Avenue, Birmingham, Ala.

Chemical Investigations, Analyses of Ores, Slags, Coals, Waters, &amp;c. Reports on Mineral Properties, &amp;c. Correspondence solicited.

RATTLE &amp; NYE,

Analytical Chemists,

METALLURGISTS,

AND

Mining Engineers,

CLEVELAND, O.

COTTON MACHINERY FOR SALE, made

by Bridesburg Manufacturing Co. 4,000

spindles, carding, &amp;c., entirely complete and in

very good condition. Will be sold at a great

bargain for cash. Address "D. W. O.," care

Manufacturers' Record, Baltimore, Md.

Textile Machinery

FOR SALE.

Picking, Carding, Roving, Spinning, Spooling,

Twisting, Reeling, Winding, Weaving and Fin-

ishing for Cotton and Woolen Mills. Very large

stock to select from in our storehouses here, of

over two acres of storage.

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Emery Wheel Surfacing Machine.

Base of machine has sufficient flange to give solid floor

foundation. Table is so supported that it cannot spring

under heavy weights. Solid emery wheels or wood-covered

wheels can be used, and table is easily adjusted to wearing

away of wheel. Machine is well proportioned and thor-

oughly built. Write for circular.

Springfield Emery Wheel Mfg. Co.

Successors to SPRINGFIELD BLUE &amp; EMERY WHEEL CO.

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### PROPOSALS.

**UNITED STATES ENGINEER OFFICE.** WILMINGTON, N. C., Nov. 6th, 1890. SEALED PROPOSALS for sheet piling, stone, mattresses, &c., in place in dike in Winyaw Bay, S. C., are to be received at this office until 12 M. December 15th, 1890. The attention of bidders is specially invited to Acts of Congress, approved 26th February, 1885, and 23d February, 1887, volume 23, page 332, and volume 24, page 414, Statutes at Large. All information furnished by W. H. BIXBY, Captain of Engineers.

**UNITED STATES ENGINEER OFFICE.** WILMINGTON, N. C., Nov. 6th, 1890. SEALED PROPOSALS for dredging in the Cape Fear River at and below Wilmington, N. C., and Lockwood's Folly River, N. C., will be received at this office until 11 A. M., December 15th, 1890. The attention of bidders is specially invited to Acts of Congress, approved 26th February, 1885, and 23d February, 1887, volume 23, page 332, and volume 24, page 414, Statutes at Large. All information furnished by W. H. BIXBY, Captain of Engineers.

SEALED PROPOSALS will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 3 o'clock P. M. on the 10th day of December, 1890, for all the labor and material required for the approaches to the U. S. Courthouse, Postoffice and Customhouse at Vicksburg, Miss., in accordance with the drawing and specification, copies of which may be had on application at this office or the office of the Superintendent at Vicksburg, Miss. Each bid must be accompanied by a certified check for \$100. The Department will reject all bids received after the time herein stated for opening the same, also all bids which do not comply strictly with all the requirements of this invitation. Proposals must be enclosed in envelopes, sealed and marked "Proposal for the approaches to the U. S. Courthouse, Postoffice and Customhouse at Vicksburg, Miss.," and addressed to JAS. H. WINDRIM, Supervising Architect. November 15, 1890.

SEALED PROPOSALS will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 3 o'clock P. M. on the 9th day of December, 1890, for all the labor and material and fixing in place complete the low-pressure, return-circulation, steam-heating and ventilating apparatus for the United States courthouse, postoffice, &c., building at Augusta, Ga., in accordance with the drawings and specification, copies of which may be had on application at this office or the office of the superintendent at Augusta, Ga. Each bid must be accompanied by a certified check for \$100. The department will reject all bids received after the time herein stated for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be enclosed in envelopes, sealed and marked "Proposal for the Low-pressure, return-circulation, Steam-heating and Ventilating Apparatus for the U. S. Courthouse, Postoffice, &c., Building at Augusta, Ga.," and addressed to JAS. H. WINDRIM, Supervising Architect. November 17, 1890.

SEALED PROPOSALS for building a Courthouse at Seimer, the new County Seat of McNairy County, Tenn., on the M. & O. Railroad, will be received by the undersigned till January 1, 1891. We are obligated to the county to build a \$10,000 Courthouse, and desire the best house that can be built for that amount; the building to be completed by October 1, 1891, contractors taking the work from foundation to finish. Each bidder will furnish plans and specifications of the house he is willing to build for the \$10,000, which will then be examined by a committee and the plan thought best will be adopted and the contract for the building will be awarded accordingly. All other plans and specifications will be returned to the senders. A jail is also to be built, but is no part of this. Best of reference given as to reliability of the undersigned, and money paid as the work progresses. THE McNAIRY COUNTY REAL ESTATE & IMPROVEMENT COMPANY, Seimer, Tenn.

### FOR SALE.

## Foundry and Machine Plant.

In one of the most rapid growing towns of the central South; in the midst of great steel-making ore belt. Property fronts on two railroads and will have connection with a third. Furnaces are being built in the vicinity. Just the site for furnace castings, repairs or manufacture of furnace machinery, &c. Would also be suitable for the manufacture of chilled wheels, &c. Ample ground for enlargement of plant. Address, until December 31st, 1890, "MACHINE WORKS," care Manufacturers' Record, Baltimore, Md.

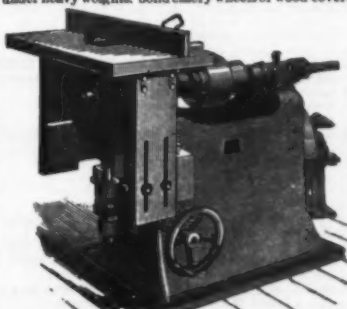
### FOR SALE

## Magnificent HOTEL Property.

The Lease and Fixtures of the "Hotel Glyndon," Richmond, Ky.

Richmond is a thriving town of 5,100 people, three railroads, gas works, water works, street car line running direct to hotel from all depots. 450 new building lots just sold. The hotel is a splendid structure four stories, Queen Anne, of pressed brick with stone trimmings, completed 12 months ago, furnished throughout in the most approved manner. Magnificent office, finished in natural oak, tiling floor, furnaces, elaborate gas fixtures. Handsome bar room, billiard room, barber shop and bath rooms. This said by all to be the prettiest hotel in the State, and it is the only first-class hotel in the town. For particulars call on or address

J. B. WILLIS, Richmond, Ky.



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PILE DRIVERS.

VULCAN IRON WORKS, Chicago.

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If interested send for our Catalogue No. 13, just issued, of Locomotives, Cars, &c., of every description, for all kinds of work.

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Have on hand for sale all kinds of SECOND HAND ROLLING STOCK.

Established 1855.

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Late the George Place Machinery Co.

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One Hunneman and one Button in first-class condition. Also all kinds of second-hand Engines and Boilers for sale cheap. For terms, prices, &c., address

Lowell Steam Boiler Works,

LOWELL, MASS.

Estimates given on New Work of every description.

## FOR SALE.

One 40 to 50 Horse-Power Second-Hand BALL ENGINE. Good as new.

One 40 to 50 Horse-Power Second-Hand HARRISON'S SAFETY BOILER.

Will be sold at great bargain. We sell to put in more power.

MARION COTTON MILLS,

MARION, S. C.

## LATHES.

1 20 in. x 12 ft. Gray Lathe.

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Address THE GORDON STEAM PUMP CO.,

Hamilton, Ohio.

## SECOND-HAND WOODWORKING MACHINERY FOR SALE.

24-in. 6-Roll Single Surface Planer & Matcher \$275  
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24-in. J. A. F. & Co. Little Champion' Pl. & Mch 200  
24-in. J. A. F. & Co. Double Drum 6-Roll Sander 175  
Colburn 2-Spindle Blindstole Boring Machine 35  
Band Saw, 25-inch wheels, iron table. 35  
No. 2 J. A. F. & Co. Resawing Mach. 22-in. saw 165  
No. 6 Sturtevant Pres. Blower, countershaft. 85  
6x6 Vertical Engine..... 100  
35 h. p. Portable Boiler..... 200  
25 h. p. Tubular Boiler..... 150

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Dealer in Machinery, 109 Jefferson Avenue,  
Detroit, Mich.

Valuable Property  
FOR SALE.

Surviving Partners' Sale of "Stevens' Pottery," one of the Largest Potteries in the South.

Will be sold before Courthouse door, city of Milledgeville and said County and State on first Tuesday in January, 1897, between legal sale hours, to the highest bidder, the entire plant known as Stevens' Pottery, consisting of Sewer Pipe, Fire-Brick and Stoneware Plants, fully equipped with modern machinery throughout, and all necessary buildings for successful operation. Has 2,600 acres of land, more or less, on which are fine clay beds in unlimited quantities; dwellings, tenement houses; one storehouse with mixed stock of goods. The entire property will be sold in a lump; terms cash. Sold for division between surviving partners and legatees of deceased partner. Purchasers invited to inspect property. Titles perfect and business paying handsome dividend. W. C. & J. H. STEVENS, surviving partners of

STEVENS BROS. & CO.

Stevens' Pottery, Ga.

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Cars, Engines, Frogs

AND SWITCHES,

CARLISLE, PA.

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1 20-in. swing Engine Lathe, 14-ft. bed.

1 14-in. swing Engine Lathe, 7-ft. bed.

1 15-in. Crank Shaper.

1 24-in. B. G. Drill Press.

1 Water Grinder.

1 25 in. x 25 in. x 7 ft. Planer.

All the above are NEW and will be sold at a BARGAIN. Write for our complete catalogue.

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182 to 188 Highland Ave., Sidney, Ohio.

## Second-Hand Machinery Cheap.

1 8-H.P. Portable Engine and Boiler, on wheels.

1 10-H.P. Portable Engine and Boiler, on skids.

1 No. 1 Universal Grinding Machine. B. & S.

1 No. 2 Universal Grinding Machine, 40 in. bet. centers. Brown & Sharpe.

1 No. 2 Two-Spindle Profiling Machine. Bement.

1 Set 10 in. x 6 ft. Power Bending Rolls.

1 Trip Hammer.

1 No. 7 Root Blower. 1 No. 3 Sturtevant Exhaust.

1 No. 3 Universal Miller. Brainard.

1 No. 2 Lincoln Pattern Miller.

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1 Set 12 in. x 10 ft. Power Bending Rolls.

Write us for what you want and send description of Machinery that you wish to trade or sell.

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22 Warren Street, New York.

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ery. Good Condition.

L. F. SEYFERT'S SONS,

Nos. 437, 439, 441 N. Third St., Philadelphia, Pa.

1 180 h.p. Corliss Hor. Engine, cyl. 20x28 in.

1 100 h.p. Horiz. Engine, cyl. 18x36 in. Rickards.

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1 40 h.p. Vertical Engine, cyl. 12x14 in. Naylor.

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6, 8, 10, 15 & 20 h.p. Portable Horiz. Eng., single & double cyl. & drum. Combined & single.

1 12 h.p. Agricultural Engine & Boiler on wheels.

1 8 h.p. Agricultural Engine & Boiler on wheels.

40 & 50 h.p. Hor. High Speed "Southwark" Aut. Cut-off Engines.

50 Upright Tub. Steel Boilers, 4 to 40 h.p. Cheap.

1 50 h.p. R. T. Boiler, 48 in. x 16 ft. 30 lbs. press.

1 25 h.p. R. T. Boiler, 42 in. x 10 ft. (28) 3 in. tubes.

1 Planer 36x36 in. x 10 ft. Bement.

1 Planer 33x33 in. x 9 ft. E. & A. Betts.

1 Planer 30x30 in. x 6 ft. Scott Bros.

1 Planer 24x24 in. x 4 ft. Scott Bros.

## SECOND-HAND MACHINERY.

1 Iron Pl., planes 8 ft. long, 38 in. x 36 in. 2 hds. Sellers.

1 " " 7 ft. " 30 in. x 30 in.

1 " " 8 ft. " 30 in. x 30 in.

1 Engine Lathe, 20-ft. bed, 72-in. swing. Good.

1 Engine Lathe, 16-ft. bed, 60-in. swing.

1 Engine Lathe, 10-ft. bed, 20-in. swing. Good.

1 Automatic Gap Lathe, 8-ft. bed, 48-in. swing.

1 Engine Lathe, 8-ft. bed, 18 in. swing.

1 Engine Lathe, 8 feet bed, 15 inch swing.

1 " " 6 " 18 " chuck.

and various other sizes.

1 Small Turret Head Lathe.

1 24-in. B. G. S. F. Blaisdell Drill Good.

1 20 inch Plain Drilling Machine.

1 Betts 50-in. Horizontal Boring Mill.

1 6 1/2 in. Slotter, automatic feed.

1 40-lb. Bradley Cushioned Hammer.

1 Small Power Press.

Send for list Second-hand tools.

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## Second-Hand MACHINERY in Good Order

## FOR SALE CHEAP.

Engine Lathes—62 in. x 17 ft.; 42 in. x 12 ft.; 32 in.

x 12 ft.; 29 in. x 15 ft.; 24 in. x 10 ft.; 22 in. x 8, 10

and 12 ft.; 20 in. x 8 and 14 ft.; 15 in. x 6 and 8 ft.;

1 each 24 in. x 29 in. and 24 in. x 24 in. x 12 ft.; 24 in.

x 15 and 16 ft.; 18 in. x 10 ft.; 20 in. x 10 ft.; 20 in. x

12 ft.; 1 each 16 in. x 6, 8 and 10 ft.; 6 each 14 in. x

6 ft.; 1 12 in. x 5 ft.; 2 each 11 in. x 4 ft. and 5 ft.;

1 10 in. x 3 1/2 ft. foot power.

1 each Planer, 24 in. x 24 in. x 5 and 8 ft.

1 each Planer, 30 in. x 30 in. x 8 ft.

1 Planer, 34 in. x 32 in. x 12 ft., 50 in. x 30 in. x 17 ft.

1 Planer, 40 in. x 40 in. x 14 ft.

1 Planer, 42 in. x 42 in. x 10 and 12 ft.

1 Planer, 22 in. x 20 in. x 4 and 5 ft.

1 Planer, 16 in. x 16 in. x 3 ft.

1 Planer, 42 in. x 42 in. x 12 ft., with two heads.

1 Planer, 50 in. x 50 in. x 17 ft., with one head.

1 Planer, 100 in. x 100 in. x 18 ft., with two heads.

1 Engine Lathe, 22x22 ft., good order. Niles.

1 New Horizontal Boring Machine, with facing attachment, Newark Machine Tool Co., makers.

24x18x4-foot Planer. Ames.

1 Drop Hammer, 75 pounds.

1 48-in. Radial Drill.

1 Shaper each 6, 10, 12, 15, 20 and 30-in. strike.

3 Crank Planers. 6 Lincoln Pat. No. 2 Millers.

1 Universal Miller. Brown & Sharpe.

1 each 2, 3, 4 and 6 Spindle Gang Drill.

1 each Nos. 1, 3, 4 and 5 Screw Machines.

1 each 40 and 60 pound Vertical Hammer.

1 No. 55 Ferracute Press. 1 Nut-facing Machine.

1 No. 2 1/2 Fowler Press.

10 Foot Presses, assorted. 8 Power Presses, ass'd.

12 Punching and Shearing Machines, assorted.

2 Return Tubular Boilers, 35 horse-power.

1 Bolt Cutter, each 1/2 in. to 1 in., and 1/2 in. to 2 in.

1 No. 1 Hand Millers. Pratt & Whitney.

1 Horizontal Engine each 25 and 45 horse-power.

1 Horizontal Boring Machine, 36 in. x 5 ft.

2 each 8 and 13-inch Slotters. Correspondence

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30 Second-Hand Narrow Gauge Passenger

Coaches.

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Coaches.

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## Cotton Machinery.

1 3,000 Spindle Carpet Warp Plant.

1 200 Loom Plant for Osnaburghs, Sheet-

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1 System Bagging Machinery, capacity

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1 Full System of Print Cloth Machinery,

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new machinery.

1 System of Rabeth Spinning, 4,300

spindles. Fine condition.

8 3/8-in. Gambell Cards, full roller.

Also a large lot of Miscellaneous Ma-

chinery in first-class condition.

L. Godfrey & Co., 147 Gaspee Street, Providence, R.I.



## Sims' Eave Trough.

The Sims patent eave trough illustrated on this page has many points of excellence that recommend it to the trade. It is constructed of galvanized iron, and the trough is beaded on both sides, making it doubly strong and easy to match either way, forward or back, along the roof. It is securely cross-braced, which also adds to its strength and durability, and the braces afford an improved way of fastening it to the roof. A novel feature is that no solder is used in its construction or in fastening it to buildings. The end of the down spout is bent diagonally, with the double-ply portion turned over, forming a solderless water-tight joint.

Each section is made with V or U-shaped

different sizes as desired can be furnished at an extra charge.

The sifting brushes and mixing agitator are made so that they can easily be taken out for cleaning or other purposes, and all parts are made detachable. As this machine is for hand-power, it can be run at any convenient speed. Either sifter or mixer can be run alone by changing crank as shown in illustration. The weight is 215 pounds, and it occupies a floor space of 24x48 inches. They are made in ten different sizes, ranging from ten pounds to ten barrels, and the manufacturers are negotiating with a firm to make a machine mixing ten tons at one time.

Day's lightning packer is used for filling and packing flour, buckwheat, farina, cracked wheat, starch, saleratus, baking



THE SIMS EAVE TROUGH.

guides, and has one end provided with a slip-joint so constructed that the flanged guides of one section will fit into flange guides of the next, while the plain of second section will fit into the slip-joint of first section, so by making both edges the same shape it can be used with either side to the building, and the water will, it is stated, invariably run away from slips, thereby saving the expense of carrying a double stock of goods and the inconvenience of ordering a right or left-hand trough. The manufacturers are Sims & Millard, of Newark, Ohio.

## Mixing and Packing Machinery.

We present our readers with illustrations of Hunter's lightning sifter and mixer and Day's lightning packer. The former is used largely for sifting and mixing baking powder, self-raising flour, fertilizers, drugs, paints, plasters, perfumes and all kinds of powdered or granular materials. It is recognized as a standard machine, and among the superior points mentioned by the manufacturers are thoroughness of work, ease and convenience in operating,

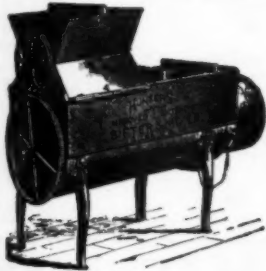


FIG. 1.

durability and simplicity of construction, freedom from dust and consequent saving of material.

The operation of the machine is as follows: The material is put into hopper of sifter, and it immediately comes in contact with the revolving brushes passing over the semi-cylindrical sieve, through which it is brushed into the mixer below, then meeting a double spiral agitator. The revolving agitator does the work of mixing in a very short time. By opening the discharge valve it rapidly empties itself. The company manufactures an economical receiving bin, by the use of which, it is stated, there will be no dust escape while emptying. The whole process requires but one handling. As the machines are dust-tight there is no dirt created, but everything is kept clean and neat. All machines (except large sizes) are made to run sifter and mixer alone or both together. Either the brush, mixing agitator or sieve can be taken out instantly and replaced in like manner. One sieve not finer than 50 goes with each machine, but as many

powder, spices, soap powder, paints, drugs, all pulverized, granulated and fibrous substances.

This machine is designed for manufacturers desiring a low priced packer for small packages, one-half ounce to six pounds being the usual range, but larger sizes may be made to order.

Cans, wide-mouthed bottles or packages of any shape with wrappers of any material can be used. Rate of speed 2,000 to 4,000 packages per day.

It is not confined to materials which run freely, for material is not left to the action of gravity, but is forced out, and the packages may be filled loosely or compactly as desired. Does not require skilled labor to



FIG. 2.

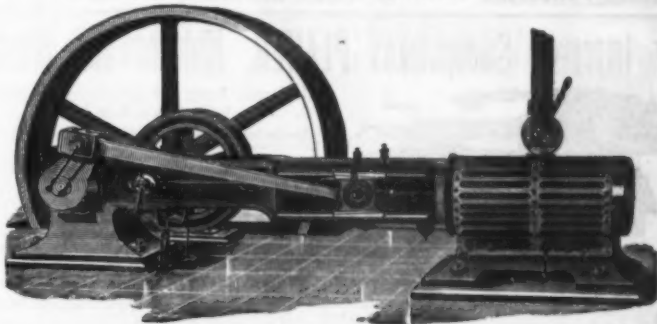
operate it. The empty packages are placed on tubes, and raising the platform starts the machine, which stops automatically when correct amount is in package.

By using different augers and tubes, various sizes and shapes of packages can be packed by one machine; changing from one size to another requires but a few minutes.

The above machines are manufactured by J. H. Day & Co., of Cincinnati, Ohio, and New York, who make a specialty of sifting, mixing and packing machinery, which includes a full line of bakers' machinery.

# E. J. WOOD, ARCHITECT, Consulting Engineer and Contractor, 243 BROADWAY, NEW YORK.

Superintendent of the Construction and Erection of Factories, Steam Plants and all kinds of Machinery. Engines Indicated, Valves Adjusted and Power Measured.



COMPLETE STEAM PLANTS. BOILERS, ENGINES, Every Description.  
SHAFTING, PULLEYS, HANGERS.  
DRAWINGS AND SUPERINTENDENCE. ECONOMY GUARANTEED.  
CORRESPONDENCE SOLICITED.

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Merits Proven by Over Twenty Years' Practical Work.

## HARRISON SAFETY BOILERS.

Combine Maximum Safety. Economy of Fuel, Durability. All sizes from 4 H. P. to 240 H. P.

Ease of Transportation, Erection and Repair. Full Particulars, Drawings and Estimates mailed upon application.

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### STEAM PUMP.

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Economical. Simple. Durable. Compact. Efficient.  
PULSOMETER STEAM PUMP CO., New York.

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#### WING FIRM JOINT CALIPERS

With Wing and Set Screw.

INSIDE, No. 55 D.

Price, by mail, postpaid.

6 inch. \$1.00 16 inch. \$1.75

10 " 1.50 18 " 2.50

12 " 1.25 20 " 2.50

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All highly polished.

Ideal and Leader Spring Dividers and Calipers, Depth Gauges, and Fine Machinists' Tools.

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#### NEW EXACT SURFACE GAUGE.

Superior to all others in quick, fine adjusting power, especially in grasp of pointer. Also adapted to a depth gauge and various purposes.

Price, each.

Small size, 8 inch. \$2.00

Large " 12 " 2.75

## TOOLS.

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## SIMPKIN & HILLYER,

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Manufacturers of and Agents for Steam Engines, Boilers, Pumps and Heavy Machinery. Economical Steam Plants, Rope and Belt Driving. Special Machinery for Chemical and Fertilizing Works, Gas, Water and Creosote Works. A specialty of the "Warwick" Pole Road Locomotive, "Warwick" Tram Road Locomotive, and the "Warwick" Silent Steam Street Motor. Castings furnished. Repair work solicited. Consultations, Arbitrations and Valuations. Engines indicated. Plans, Specifications and Estimates prepared. Correspondence invited.

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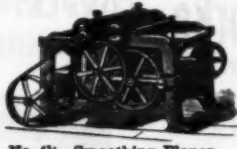
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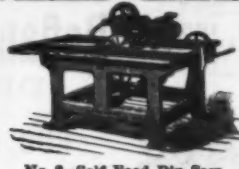
No. 74—Planer and Matcher.



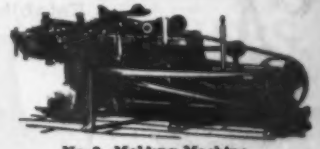
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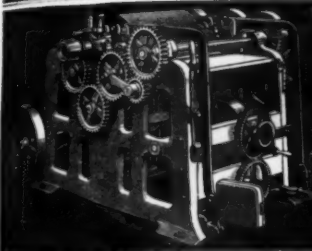
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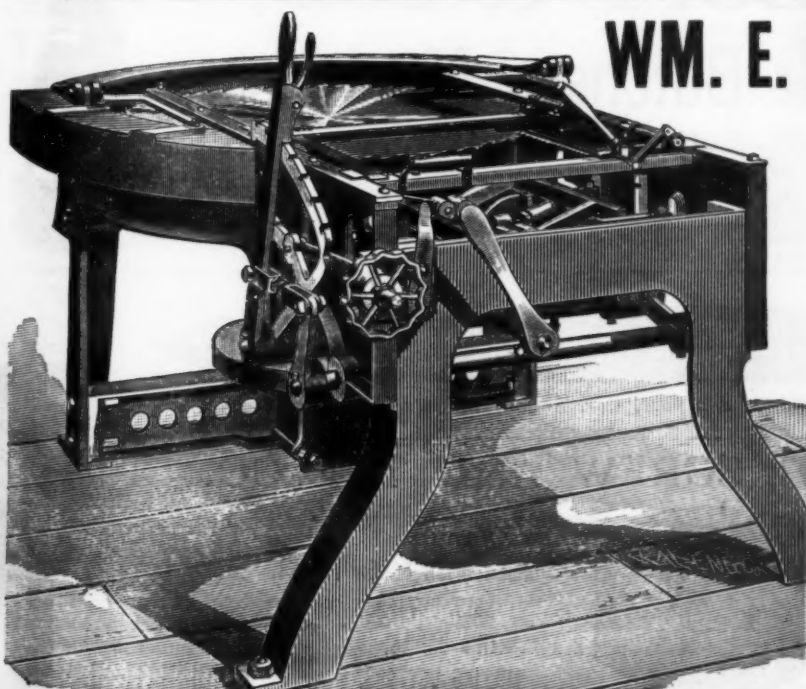
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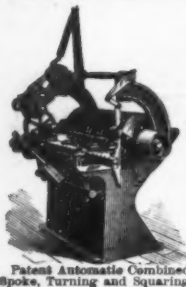
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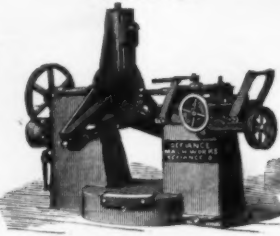
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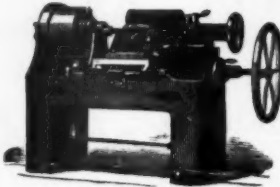
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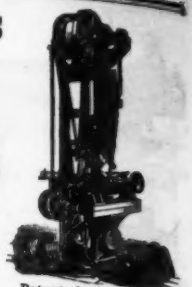
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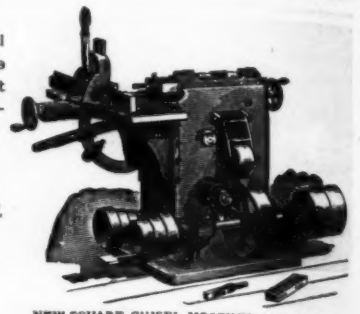
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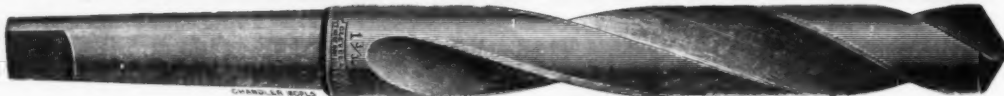
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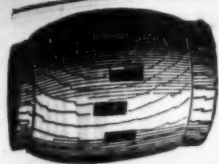


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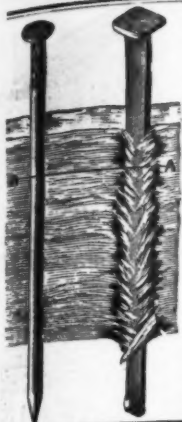


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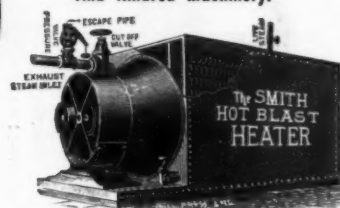
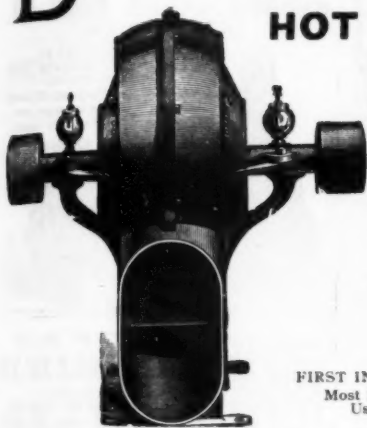
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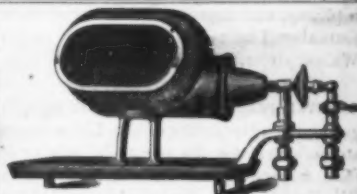
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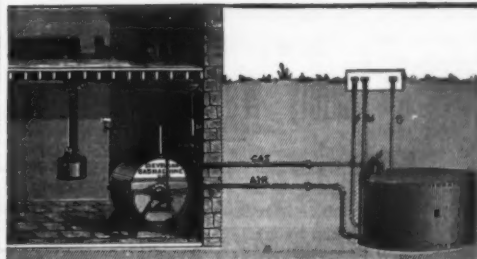
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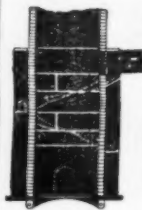
### Morlan Patent Angular Power Drill.

The accompanying illustration shows the Morlan patent drill designed for power use and adapted for use in machine shops, carriage factories, stove foundries and all other works where a light power drill is used. It is provided with a lever feed attached to the table for rapid work, as well as a screw feed when such feed is desirable. It is also provided with a slotted table making a wheel holding attachment for carriage-makers' use as well as a provision for heavier work; in such



PATENT ANGULAR POWER DRILL.

event the screw feed is at hand. The drill head is adjustable to any angle and will drill to the center of a 19-inch circle. The vertical movement of the tables is 28 inches, each of which swing on the column at will. The counter-shaft with hangers has a three-step cone pulley for 2-inch belt, the cones are 4, 6 and 8 inches, also a 7½-inch tight and loose pulley for 2-inch belt. The weight is 215 pounds. Drill socket takes ½-inch round shank drill. It is substantial and well made, and is manufactured by the M. L. Edwards Manufacturing Co., Salem, Ohio.



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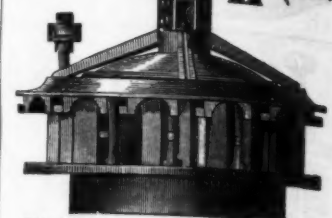


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\* Young Man."**

THE HONORABLE CHAUNCEY M. DEPEW, IN AN ADDRESS TO THE ALUMNI ASSOCIATION OF YALE UNIVERSITY, SAID, OF HIS RECENT TOUR THROUGH THE SOUTHERN STATES:

"The net results of this visit to the South, to my mind, is just this—that THE SOUTH IS THE BONANZA OF THE FUTURE. We have developed all the great and sudden opportunities for wealth—or most of them—in the Northwestern States and on the Pacific Slope, but here is a vast country WITH THE BEST CLIMATE IN THE WORLD, with conditions of health which are absolutely unparalleled—with vast forests untouched, with enormous veins of coal and iron which yet have not known anything beyond their original conditions, with soil that, under proper cultivation, for little capital can support a tremendous population; with conditions in the atmosphere for comfortable living winter and summer which exist nowhere else in the country; and that is to be the attraction for the young men who go out from the farms to seek settlement and not by immigration from abroad, for I do not think they will go that way, but by the internal immigration from our own country it is to become in time as prosperous as any other section of the country and as PROSPEROUS BY A PURELY AMERICAN DEVELOPMENT."

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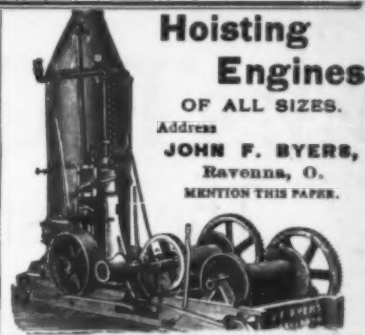
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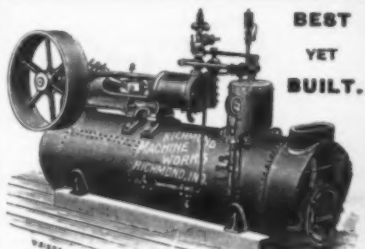
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Jed Hotchkiss, President,

Shendun, Va.



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Beautiful town-site, several hundred acres covered with ornamental trees; 10,000 city lots.

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FOR PROSPECTUS AND BY-LAWS ADDRESS

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## MIDDLESBOROUGH, KY.

### The Plan of Development of the American Association, Limited.

Speech by Alex. A. Arthur, General Manager to the American Association, Limited, Delivered in the Hall of "The Middlesborough Hotel," Middlesborough, Ky., Nov. 11, 1890.

Gentlemen—I wish to describe to you what you have seen to-day and what has been the ground for our investment here. I want you to understand what this great enterprise means in order that you may feel for yourselves we have shown wisdom and sagacity in undertaking so bold a development. If you will indulge me, I will speak to you as I would to my neighbors here, Capt. Brooks or Mr. Woodbury.

About five years ago I had an enterprise in hand in North Carolina—a large enterprise for that time—one that might have developed into something such as you see here to-day had the people connected with it been wise and experienced. It was a lumber enterprise; the people interested in it were Scotchmen. I found in developing their property that I required to have railroads. We could not do anything with the old-fashioned rivers. So I said to them: "Let me build you a railroad that we may get our timber to our mills and our lumber from our mills to the seacoast." They asked me what it would cost, where I could get the money, how it could be built. I looked about me, and went to a prominent railway company and asked them if they would build a railroad for me. They said that under certain conditions they would. What are the conditions? That you will give us all your traffic on reasonable terms, both logs to your mills and lumber to Portsmouth, and that we shall be able to reach the coal fields in the neighborhood of Cumberland Gap. I asked: Why do you want to reach Cumberland Gap? Because we hear that there are coals there, and we want to reach that coal field. I said: Are these the conditions? Yes; and we desire that you shall go and look at this coal field and report to us on the value of what you see. If your report is satisfactory we will contract to build you the railroad.

I came over here and looked around. At that time in this whole territory, between here and Pineville, there were only twelve known openings of coal. I made the railway people a report, took back a sample of the coal, and the result was that they entered into a contract to build the railroad. They asked us to place bonds to the extent of \$500,000. When that condition was sent to Scotland my friends refused to entertain it, and the whole enterprise failed. But I had seen so much here and found opportunities so tempting that when the one enterprise failed I took hold of the other—this. [Cheers.]

I found also that there were Englishmen who had more enlightenment than my Scotchmen, and they have done what the Scotchmen failed to do. They have taken hold of this property and have built railroads. They are still doing that now. They are adding to themselves profit and progress. They have married these great resources, this beautiful country and all its wealth. That is the reason I came in here. [Applause.]

I found that about fourteen or fifteen years ago some Scotchmen came here, and this property at Cumberland Gap that we now own was purchased by them. They were iron and coal-masters of Scotland, well-known people, names known to many of you, most prominent in their business. They bought the property for about \$175,000, and sent their manager here to look after it. Then the vendors of the property quarreled

about the division of the spoils, and the result was that the Scotchmen got no title for it. Afterward the American Association came in, and it took them about five years to perfect the title. Now that property is the iron ore property, or part of the iron ore property, that we own to-day, extending along the base of Cumberland mountain east and west from the gap for 30 miles.

The American Association, I may say, is the parent company—is the foundation of all this enterprise. It is an association of English capitalists, many of whom are interested in the purchase of a number of the enterprises and industries of this country. This is one department of many businesses that they have taken up in the United States. They chose me (and I feel greatly honored by the preference) to manage this affair for them. Perhaps I was competent to do so. I have had considerable knowledge of coal, iron, steel and timber, and large experience in the management of men, and for these reasons I was chosen. [Loud cheers.]

At first we purchased only 20,000 acres of land, and thought that we might lie still on that as landlords. From time to time, however, it has been represented to these men (and they have seen the value of the representations and the suggestions) that it would be better to add to their purchases and to acquire surrounding lands, so as to prevent excessive competition in the production of coal, coke, iron and steel. As I have said, they saw the value of these representations, and now own here 100,000 acres of land focussed here in a ring fence.

Then followed an accident of the situation. In all this valley of Yellow creek (the Belt Railroad now encircles about 13 miles of it) we owned no land whatever, but we saw at once that if we were to develop coal and iron we would have to control the territory here in the valley to prevent little hells in our midst. We know what mining towns are, and wished to avoid the trouble in connection with these. So we organized the Middlesborough Town Co. We took large stock in the great enterprise, and have been aiding and abetting until the Middlesborough Town Co. is now a subsidiary company of the American Association of universal credit and renown. Then, as the town grew, we came on with other subsidiary companies—water works, electric light, street railway, belt railroad, banks, etc., one after another, until the roster is telling and the tally of capital astounding. In each of these companies the American Association and Middlesborough Town Co. have stock interests. Middlesborough was born barely 18 months ago, and christened within two months of its birth—called after Middlesborough in England, which, within my own personal knowledge, has grown within 20 years from a village of 5,000 people to a manufacturing city of over 100,000 inhabitants. It has evidenced remarkable sturdiness, singular perseverance and oneness of purpose, and promises to be what its sponsors have claimed—an Anglo-American metropolis. [Loud cheers.]

And now with regard to our resources—our minerals, our forests, our capital—the food and drink upon which this sturdy child of the mountains is being nurtured and thrives so well.

The first proof we had of the value of our iron ore was, as I told you, the finding on the records the sale of this property at Cumberland Gap to some iron and coal masters of Scotland. At the time they purchased there was only one report in existence on the ores of this region (by Professor Moore, of Kentucky), and while it explained that other ores might be discovered in the neighborhood, yet only one seam of fossil ore had actually been found. We purchased on the strength of that representation and the tests of the ores in our own works in England, and on the exhaus-

tive examination by our own tried experts. Then we ourselves went on to explore and found three seams of fossil ore, and added to our properties, as I have told you, not a thousand acres of fossil ore, but 30 miles of fossil ore. Then we went on to explore further and found our oriskany, limonite and other ores and manganese stratified and in deposits, one above the other, all on our own property, in quality and quantity second to none.

Abram S. Hewitt is probably the father of the iron trade in this country. He was to lecture before the Iron and Steel Institute in New York, but through sickness was prevented. Mr. Hewitt had a map prepared showing the iron ores of this country, and sent the map down here in order that we might present it to the members of the Iron and Steel Institute when they came, and the most conclusive evidence of the value we have around us is in this topographical map. This map, in Mr. Hewitt's own handwriting as it were, shows that the bulk of the ores of the United States is at and within 100 miles of Cumberland Gap—all the known ores. [Cheers.]

We kept on exploring these ores until finally we have proved to ourselves, to our investors and to the world that at Cumberland Gap we can assemble more ores than in any other part of the United States; that with our own railroads and with our own traffic arrangements we can bring to Cumberland Gap Bessemer ores, basic ores, common iron ores, manganese and all that goes to make iron and steel cheaper than any competition, and send out our products to every important consuming market as easily as the best can do. [Loud applause.]

Lately we have been studying the question of quantity. On the other side of the mountain, in Tennessee, on our own property we are opening up several large mines for the purpose of supplying the iron works now building here. And in sight within 20 miles of Cumberland Gap it is estimated by the best living authorities that there are 17,000,000 tons of ores more than we care to work up in our lifetime. [Cheers.]

Look at this question from a commercial standpoint as well as from the plane of Middlesborough's needs. Take from Middlesborough to Roanoke, in Virginia, and you will find that there are 18 furnaces which will go into blast in 1891, and not one pound of ore has been provided as yet from mines for these furnaces; that is to say, these furnaces will demand 1,750,000 tons of iron ore, and as yet no mines have been opened up to supply them. There will be an ore famine, and those who own ore lands will make large fortunes. We can ship out ores if need be, but iron manufacturers will find it more profitable to erect additional furnaces here at the ores and within reach of good coke fuel than to foster trade where material is more difficult and dearer to get. It will all result in a survival of the fittest, and we know we are in this class. [Loud cheers.]

Now I will pass on to the coals. These alone would make us rich and justify the building of a town of 100,000 people. We find in this area of 75 square miles, belonging to the American Association, a great amphitheatre of coal mountains, and we have in that area the culminating thickness of the coal measures of the United States. We have above drainage, above where we are now, all the coal measures above the conglomerates. We have, according to height, from seven to fourteen workable seams of coal. By workable I mean seams of coal from three to seven feet in thickness. It is impossible to estimate the quantity of coal there is here. It is impossible to calculate the length of time it would take by our ordinary methods of coal mining to get the coal out. A foot of coal represents 1,000 tons per acre, and if you have 30 feet of coal, as we have in some of our hills, that means just 30,000

tons to the acre, and our field is high 80,000 acres. The coals are of various qualities. We have the cannel coal, which is our top seam; we have our bituminous coals of various kinds, steam coal that will bear transportation to the longest distances without breaking, domestic coal in lump form, splint coal, and, most important of all, our coking coal. Of this we have three seams. These coals are found in great quantities, and it is our purpose to get capital to work them. We have built, as you will see to-day, and are still instructed to build, branch line after branch line to enable our coal lessees here to open up their mines, and to offer means of transporting their coals and coke to all markets. I am not proposing to make any comparison of our coals at all, but simply claim that we have three seams of the finest coking coal; that these have been proved to the satisfaction of our investors, who are pouring in their dollars, and that we have a free and undisputed and great market all around us. Everybody now knows their quality and value. Many coal owners less favored do not like to know, and many again (iron and furnace owners) rejoice, because they foresee a supply of their needs at cheap prices. And here let me point out a great future for Cumberland Gap coke, which, like Connellsville in its section and Pocahontas in its territory, will produce a standard coke for furnace and foundry use. But I was going to point out a special and great and immediate market for coke, and that is the eighteen furnaces I told you about as going into blast next year. No coke is yet ready for this demand, or ovens yet built to supply it. As in iron ore so in coke, there will be a famine, and lucky will be our coke burners. Here is a great opportunity. [Applause.]

Again, draw a line directly east from Cumberland Gap to the Atlantic ocean, and directly south to the Gulf of Mexico, and that whole territory belongs to Cumberland Gap. There is no coal there. Procter calls it the great "coalless" world. Do you wonder at this development here? It is not the development of inexperienced men. It is not the investment of people who do not know what they are doing. We have planned and builded with foresight and sagacity. Every one of my directors is an iron or coal or steel master. And this is but a transfer of English business to American soil. [Loud cheers.]

As to our railroads. Coal and iron would be of no use to us without the railroads. When I came here first, about five years ago, I had to ride from Morristown, on the East Tennessee Railway, forty miles. For several years I had to pass in and out on horseback. We could not bring a vehicle over the roads. I saw that that condition of things could not last; that it would be useless and worthless to attempt to do anything without railroads; so I went to a prominent railroad company here, and for two years, once a month, I fought that management to build me a railroad. Finally they concluded to do so. They are here to-day, and they tell me that their business ranks third in the State of Kentucky. [Great applause.] Then I tackled my own people, and said: I have a railroad to the north of me which will give me connections. I have no railroad to the south. Well, we built the K., C. G. & L., and we are still seeking new railroad fields. These are some of our advantages. I summed them up the other day in a report I made to my people, in this, that we reach directly, on traffic arrangements, the Norfolk & Western system, running through Virginia to Norfolk, and Pennsylvania at Harrisburg. At Morristown (to which place we are now building a railroad that will be completed in January) we will reach the Richmond & Danville, which will carry us to the Carolinas. At Kaus-



ville we reach the East Tennessee, Virginia & Georgia, and by traffic arrangements we can carry our products over their huge system into the competing points in Tennessee, Virginia, Georgia, Alabama, Kentucky and Ohio, and on our own railroad through to Atlanta—Marietta just now, but Atlanta within a very short time. There we reach the whole system of the Southern railroads, and there we will pour Cumberland Gap coal, iron, steel, nails, wire, coke, etc., into the center of the Southern trade. We do not mind competition at all, because the coals and the iron, where the advantages are not so great as with us, will not compete. We believe that we can manufacture, with our facilities here, coke that will compete in any market in the United States, and this may be said of our iron and steel as well.

The Louisville & Nashville here will carry us through Kentucky on to Chicago and down to Memphis, New Orleans and Pensacola. Besides these, I hear every day of other railroads being built to Cumberland Gap. There is one, the Chattanooga & Cumberland Gap Railroad, that has a corps of engineers in the field just now, which is being built to open up a new territory of iron and give us new facilities and new markets for our coal and our coke. Another is being constructed from Nashville, and will join us just below here. Another is being built from Columbus, on the Ohio river, to Cumberland Gap, and still another from Charleston, in West Virginia, along the base of the Pine mountains, to Cumberland Gap. We have no hand in any of these railroads; they are simply the result of the development here, and show what faith their people have in our prospects. They are making their arrangements to be in at the feast. [Cheers.]

As to our timber, gentlemen, you see that for yourselves here. Unfortunately for us we have already contracted every stick of timber we have. Our coal and iron mines, our handle factories, our lumber works, saw mills, charcoal iron works and tannery have bought everything that is standing here, but these railroads I have told you about will open up vast new territories of the finest timber I have ever seen. I have spent a good deal of my time in Canada, some of it in Michigan, three or four years of it in Sweden, in the great forests there, and yet I have never seen finer timber than is to be found here in our mountains. We have timber here that is valuable and serviceable for every purpose, and I find that all the mills in our neighborhood, from Burnside, on the Cumberland river, to Pineville, and from Williamsburgh to Knoxville, are successful and making money. We ourselves have some ten or twelve mills and other lumber works running, and yet we cannot by months keep up with our orders. This opportunity will still present itself for many years to come, and, besides building material, our forests will furnish unlimited quantities of timber for furniture makers, wagon builders, &c.

I have heard it said that we seem to have everything here that we want. Well, we have a great many things, and we are very thankful for having them. Let us all appreciate the gifts the gods have given us.

We have clays—better clays than we have cannot be found in this country. We have the ordinary fire-clay; we have kaolin and felspar, and everything that can be used to manufacture bricks or tiles or crockery or china. In our Exhibition Hall you can see for yourselves the clays and their products, and our men will take you to the beds. Besides the clays, we have found and can show anyone vast deposits of mineral paints, both the iron oxides, the ochres and the chromes. We hope to make all of these serviceable and profitable. We have besides these sand, limestone in any quantity, zinc, lead and conglomerate to be used for paving and roofing.

I have made a rule, which has been impressed upon me by my directors in London, that on no consideration whatever will anything in connection with this enterprise be over-stated or over-valued, and every department is governed by this rule, that no statement is to be made that can not be verified by us. Everything that you see round 'about us here, everything that you read of in our literature, we can verify if you take the pains to ask us to do so.

Now as to the town, we are rather proud of this place. It has taken me time to get things in shape. I have been for several years getting everything perfected. My directors have been patient. But a year ago, when I said that I was ready, they said go ahead and let Middlesborough take front rank and keep it over all the other Southern industrial towns. You can see for yourselves that they have backed me with great confidence, and are not at all niggardly now, and will not be in the future. They have asked me to say to everybody that Middlesborough is the child of the American Association; bring into Middlesborough what industries you can and build up a town, and from the town build up a requirement for our coal and our iron, and we will be satisfied with the royalties we get from our lands. This has been my plan right up to the present time—to bring in one industry after another; to bring in large iron works and say to them, now you must bring in minor industries and the minor industries must bring in lesser ones, so that we can produce here in Middlesborough the common, every-day things of every-day life, and distribute them from this point to the great distributing centers of Louisville, Nashville, Atlanta, Chattanooga, Knoxville, &c., and we will foster every industry and enterprise that can be brought in here to build up the town and the American Association. [Cheers.]

In conclusion, I would say that America needs this place and our Anglo-American money, experience and push. By 1900 our country will require fifty millions of tons of iron, steel and their products, and just here we can do our share of work in the nation's great shop. Our mines, ovens, furnaces and works you have seen; these comprise our plant. We have also the sinews of body and of money, and stand ready, clean cut and vigorous, for a generation of progress and success in manufacture and arts and sciences. Come and join hands with us in the great enterprise, which is worthy the noblest efforts of us all, native or foreign born.

Gentlemen, I thank you for your patience. I have given you the plan of the company. I have told you what we have done. And I simply wish to say to you that what we have done is but the beginning of what we shall do. [Loud cheers.]

ONE of the largest pottery plants in the South will be sold at Milledgeville, Ga., on the first Tuesday in January, 1891. The property includes sewer-pipe, fire-brick and stoneware departments fully equipped with modern machinery and all necessary buildings; also dwellings, storehouse, mixed stock of goods, and about 2,600 acres of land containing extensive clay beds. The sale is made for division between surviving partners and legatees of deceased partners of the firm of Stevens Bros. & Co. The works have an established trade and a wide reputation, and are located at Stevens Pottery, in a section of Georgia notable for its delightful climate, and at point possessing churches and good schools. In our advertising columns further particulars can be seen.

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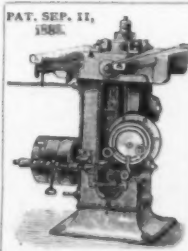
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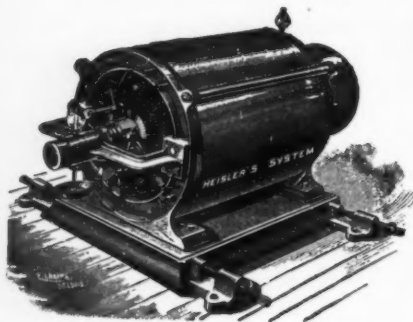
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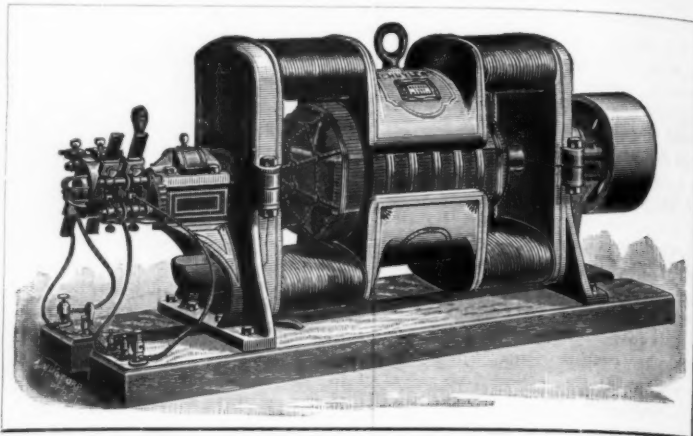
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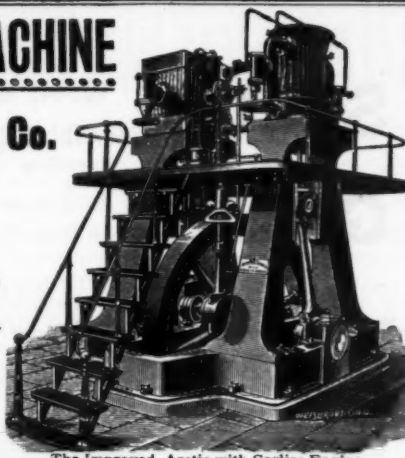
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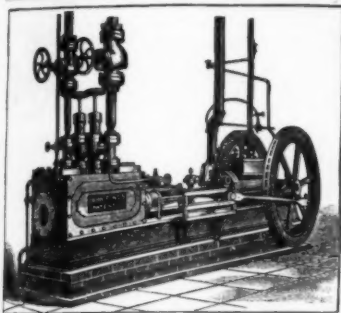
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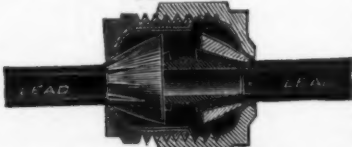
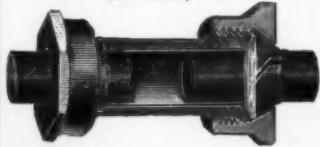
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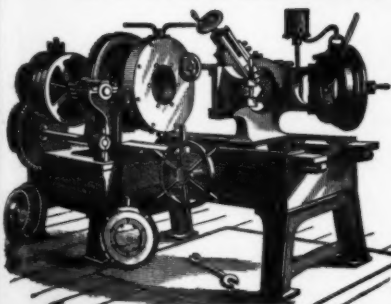
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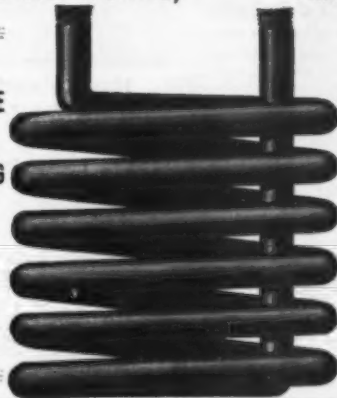
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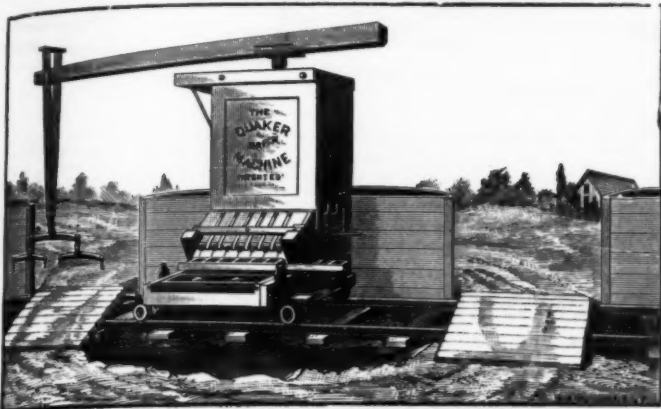
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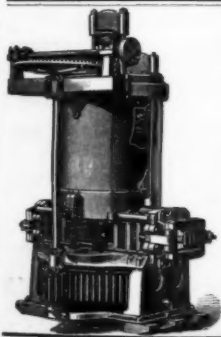
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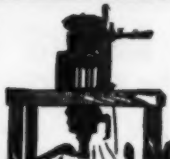
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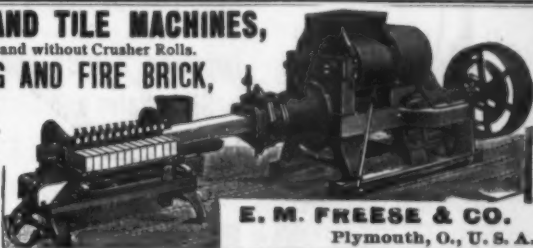
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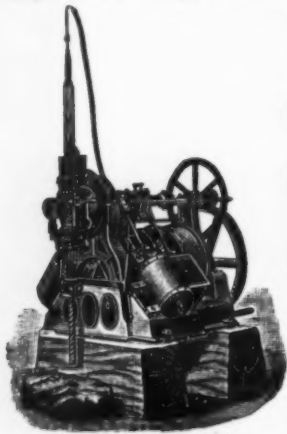
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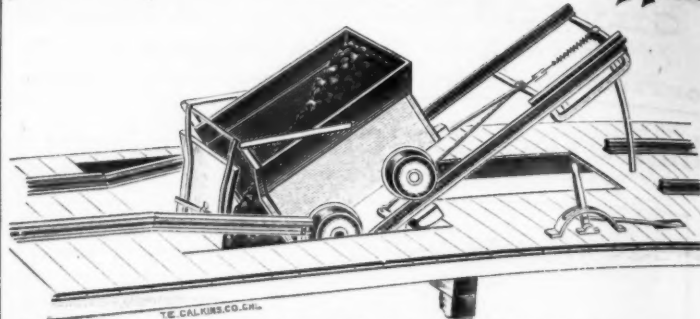
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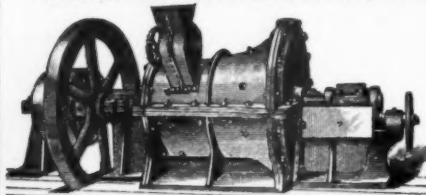
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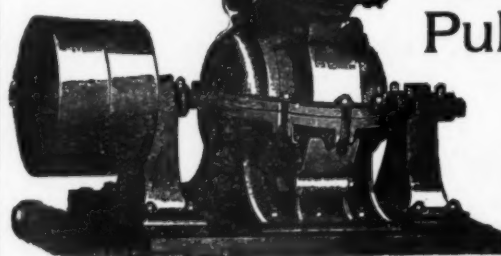
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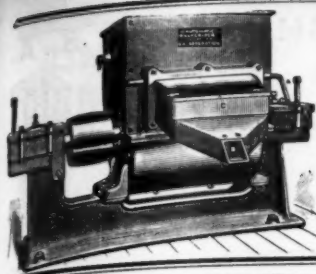
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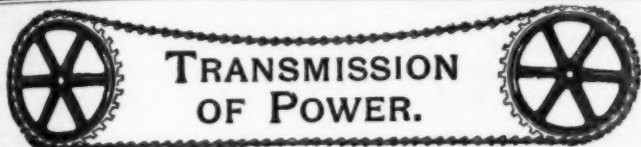
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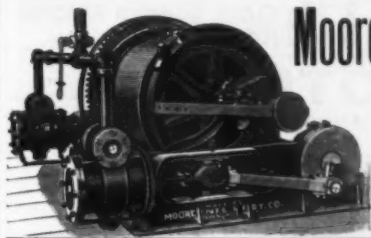
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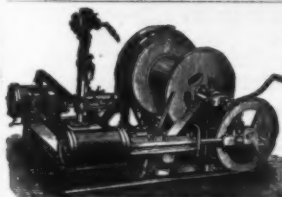
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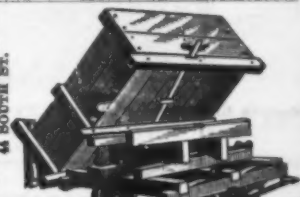
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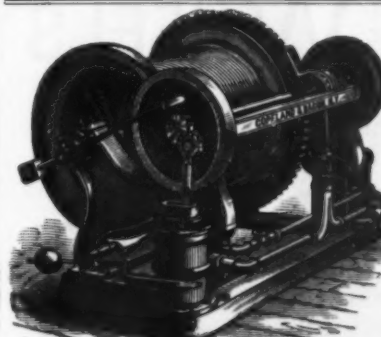
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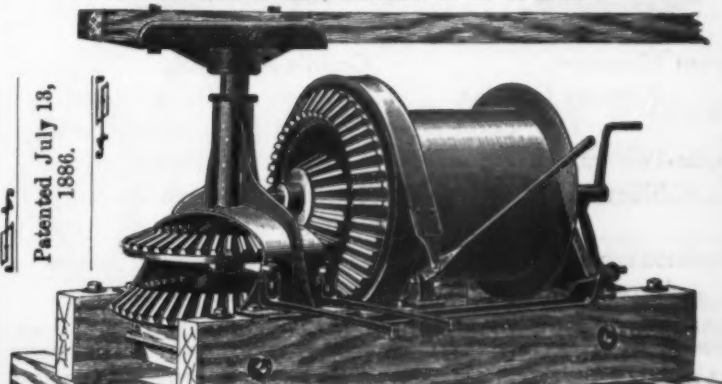
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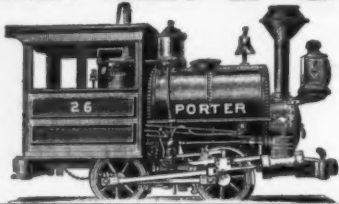
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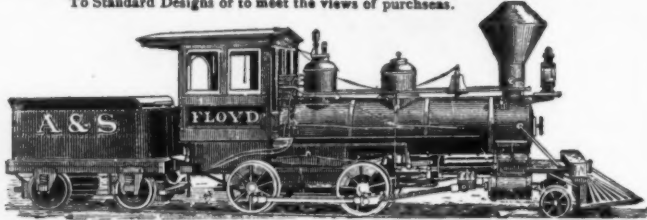
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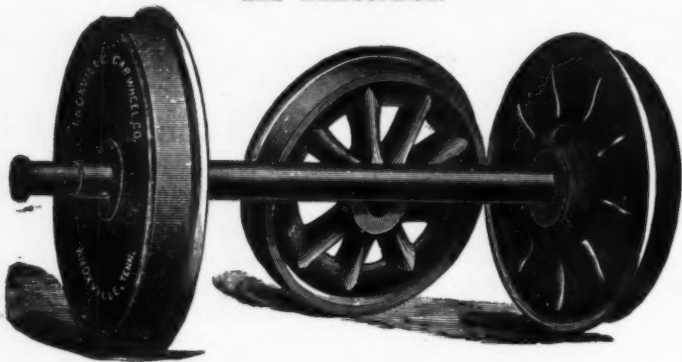
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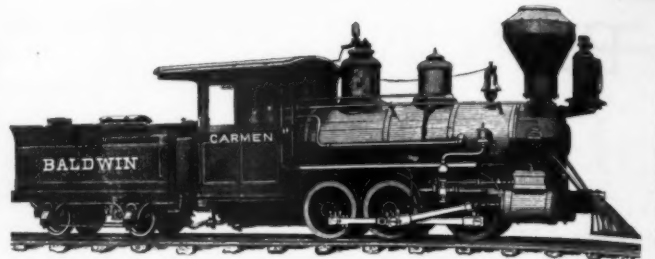
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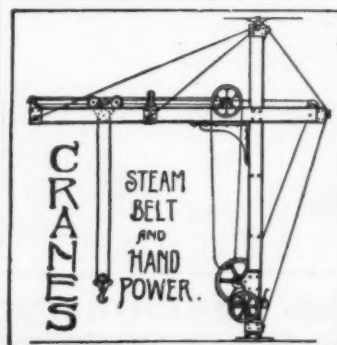
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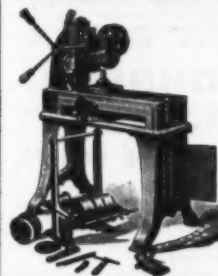


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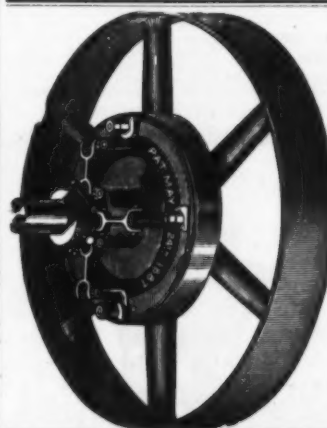


We are sole makers of hardwood bent rim,  
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STURGIS ROLLER MILLS,  
BAUER & BUHRER, Proprietors.

STURGIS, MICH., July 12, 1890.

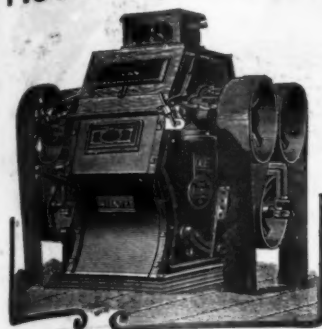
The Case Manufacturing Co., Columbus, Ohio:

GENTS—We started mill July 7th. The 12 pair 9x18 rolls you furnished us worked perfectly. They are so easy to adjust, so simple to handle, feed so regularly, grind so nicely and even, and work so smoothly on the whole, that we have no hesitancy in stating that we cannot see how they can have a superior, if equal. Aside from their perfect work, they are models of beauty and finish, and a decided ornament to any mill. We enclose clippings from papers. We are, with best wishes,

Very truly yours,

BAUER & BUHRER.

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## THE CASE MANUFACTURING CO., Columbus, Ohio.

### New Square Chisel Mortiser and Borer.

We present to our readers an illustration of a new piece of mechanism in the mortis-

ways and operated by a treadle. This slide is provided with journal boxes for the boring mandrel to run in, and carrying a boring bit, operating through the square chisel, drawing the chips away from the cutting edge and discharging same through a slot in the chisel. One great improvement is an ingenious device for changing the length and speed of the stroke to suit the depth of mortise to be made. By this

The bed is gibbed to the column, and so constructed that by moving the lever the table can be raised and lowered instantly, and held at any position to suit the work.

The table has a cross and a horizontal movement. It is also provided with a fence for making straight and angle mortises, and stops for gauging the length and position of single or double mortises.

The single treadle is placed in a con-

The builders furnish with the machine six chisels, each  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$  and 1 inch and augers to suit.

For further information in regard to this machine, address the Egan Co., Nos. 228 to 248 West Front street, Cincinnati, Ohio.

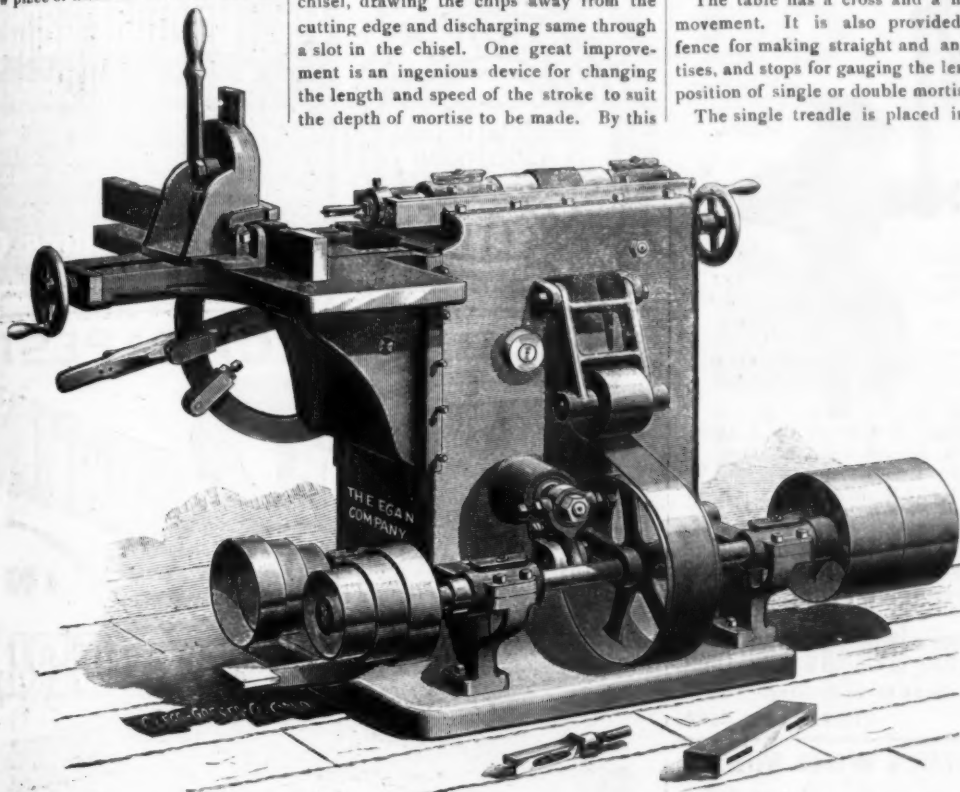
### Rotary Cutting Veneer Machine with Impression Roller.

Orange box sides, crate stock and similar grades of thin lumber which are required in large quantities of uniform dimension, are rapidly and economically produced direct from the log in complete dimension by the rotary cutting veneer machine equipped with an "impression roller," driven by friction with the face of log, and carrying knives for making the lateral divisions.

While the impression roller is not practical for very long machines, nor for stock of a great variety of dimension, yet for the class of stock above named it has proven very satisfactory. The advantage of this device is said to be in the saving of the cost of a second machine for dividing the stock, and the time and labor of the second handling and dividing of it from the sheet. Besides, the stock can be handled more rapidly and easily than when in long sheets, allowing a higher speed of machine and a larger output in a given time.

In the machine above illustrated the impression roller is put on as an attachment, which can be entirely removed in a few moments, leaving the machine clear for general veneer work.

The roller can be instantly retired from the log, allowing continuous sheets, or



NEW SQUARE CHISEL MORTISER AND BORER.

ing line which has just been brought out by the celebrated makers of woodworking machinery mentioned below. This tool has special advantages not usually found in machines of this class, and which will recommend it to practical men everywhere. It has met with a large and increasing demand, due to the substantial manner in which it is constructed and the claim that it possesses the highest efficiency yet attained.

The cut herewith represents the new improved square chisel mortiser and borer, a machine that will, we are informed, give the best of satisfaction, making mortises in either hard or soft wood. It will make a mortise from 5-16 of an inch square up to 1 inch square, and any depth up to 6 and almost any length, leaving the mortise free from chips, saving time and money, as no clearing out of the mortise is necessary, and it will be found suitable for wagon and box factories, sash, door and blind factories, and general work.

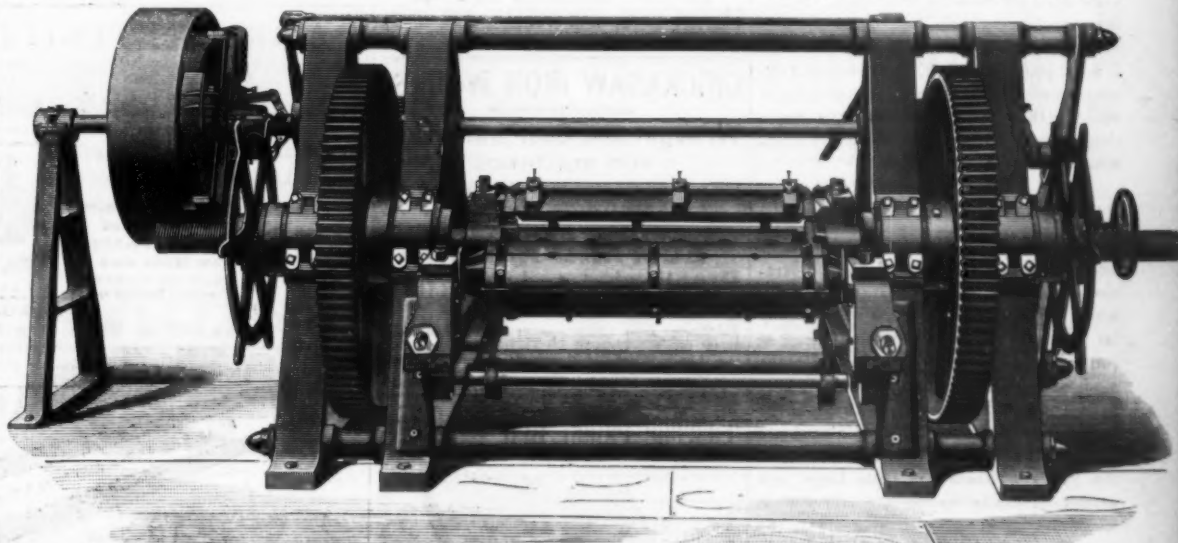
The column is very heavy and strong, being cast hollow. All necessary parts are planed true. The countershaft runs in boxes, which are a part of the main column, making a complete machine.

The mortise chisel is connected to a heavy reciprocating slide working in planed

arrangement, as the stroke is shortened, the bit may be made to work faster, allowing an estimated saving of over 100 per cent.

venient position, and when pressed down gives motion to the chisel bar. Suitable provision is made to increase the number of strokes according to the depth of mortise.

returned to its work without the stopping of the machine. It is built by Coe & Wilkes, Painesville, Ohio, who will furnish further information.



ROTARY CUTTING VENEER MACHINE WITH IMPRESSION ROLLER.

## The Markets.

OFFICE MANUFACTURERS' RECORD,  
BALTIMORE, November 26, 1890.

Despite the unrest and commotion in so many channels of business the iron trade, so far at least, has been free from fluctuations or disaster. There is no reason why it should suffer. During the months of September and October extensive purchases were made and contracts entered into for iron and steel, crude and finished, to be delivered during the following three or four months. The possible damage to the industry lies in the refusal or delay of buyers to place orders now or during the month of December for material to be delivered later on. We have endeavored to obtain expressions of opinion on this point from leading manufacturers North and South, and so far as we have been favored with opinion, they all lie practically in the direction of steady values for some months to come. The momentum that has been acquired cannot be checked suddenly. Purchasers may wait a week or a month to see what is likely to happen, but they will buy at current market rates in time to keep their mills, shops or foundries running along. The disturbances in stock markets will result to the advantage of legitimate dealers. Wild speculation will be checked. The attention of the world has been called to the dangers of scattering capital with a lavish hand in the four corners of the world. Legitimate necessities are increasing. The railroads of the country are nearly all in need of more locomotives, cars, equipments and supplies. The shops and mills are all in the market for additional capacity of some sort or other. New enterprises are multiplying and a vast amount of material will be needed and called for during the winter unless something unusual occurs. For reasons like these manufacturers feel that no depression in prices is likely to occur. Pressure for money may in individual cases precipitate sales below market rates, but it is probable that the general level of prices will not be lowered to any appreciable extent. There are many who are prepared to controvert this point, but as the situation now stands, the chances are in favor of steady consumption at present prices.

All the furnaces and mills are turning out their full quota, and sales are taking place of all new unsold material about at the rates prevailing a month ago. Rails are \$29 to \$30 at Pennsylvania mills. Billets \$29.50. The merchant iron, sheet and plate mills are crowded with work. Building activity continues, but operations will soon draw to a close. The season has been a most prosperous one, and constructors, contractors, engineers and architects are of opinion that preparations will be made this winter for even more extensive operations next year.

### HARDWARE.

The volume of business is slowly diminishing, and the market will be comparatively inactive for the next thirty days, when the spring season will open in the far Southern States. Had the values of cotton and sugar been less affected by the monetary stringency trade would likely have continued brisk right through the season, and no cause of complaint would have existed. However, as the balance of the year's business has been large, and profits generally up to the average, it would be unbecoming to grumble at the present period of enforced quiet. Prices, except for nails and iron, remain steady, but can hardly be regarded in as satisfactory condition which has existed during the summer and fall; consequently, caution in purchases is being displayed by conservative buyers, and the same spirit should be carried through the remainder of the

season, although no decided declines are in immediate prospect. We learn of a new firm to succeed one of our old houses January 1, to be composed of active young men of experience and energy, with all the capital necessary to insure success.

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Correspondence of Furnaces Invited.

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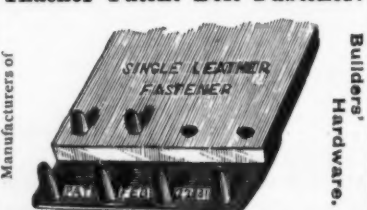
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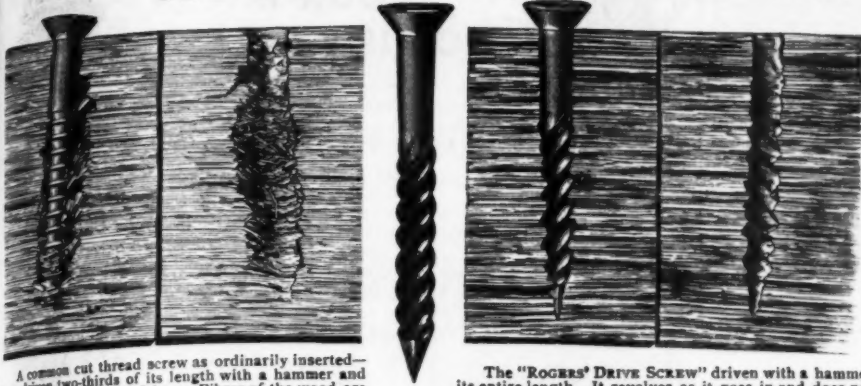
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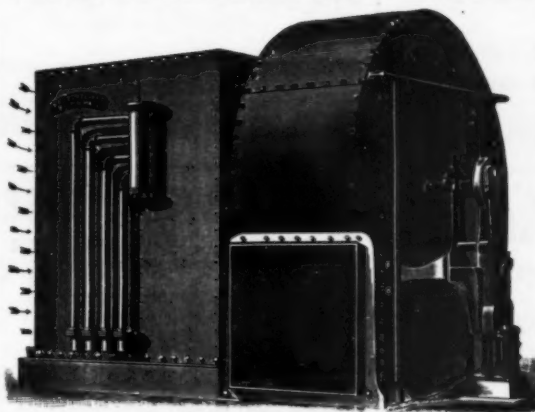
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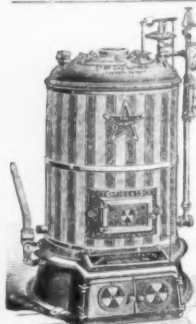
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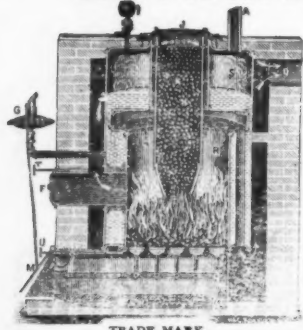
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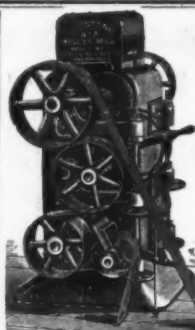
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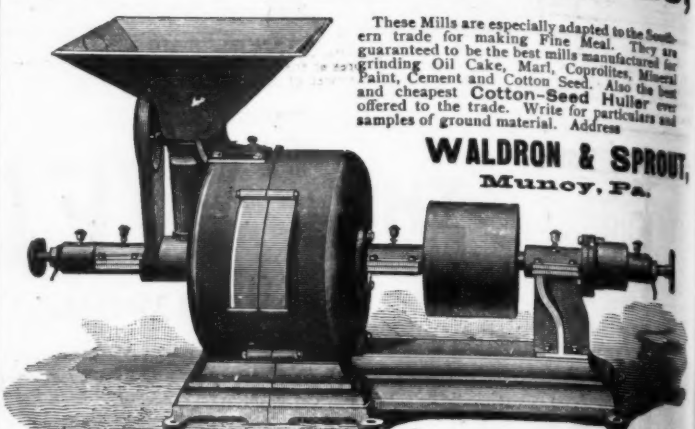
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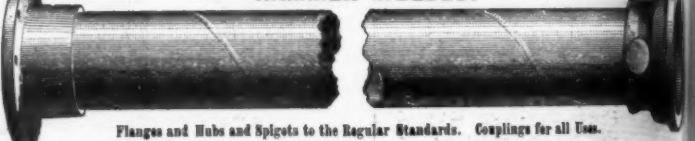


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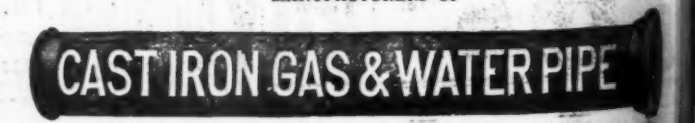
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[Special Cor. MANUFACTURERS' RECORD.]

NEW YORK, November 25, 1890.

The characteristic of the lumber trade here and, we believe, throughout the North, is its activity. A great many small sales are being made. Buyers and builders are "sorting up" and carrying lumber. Last year this was the exception. This change is quite an acceptable one to the wholesalers, who for years past have been expected to have anything and everything a retailer or a retailer's customer might want. There is confidence in steady lumber prices. This may seem strange just now, when there is so much rumor of failure, but legitimate trade is not affected. Building has to be done. Lumber has reached its lowest. Manufacturers cannot afford, neither here nor in the South, to pile up large stocks. So that we feel assured against an over-supply as well as against any general reduction in prices. Throughout New England lumber men are doing a good steady business. This has been a good building year. In this State and in Pennsylvania lumber has sold all year and at better prices because fewer cuts were secretly made. The arrivals of white pine have been large until recently. Navigation will soon close. Freight rates have already advanced on the Western roads in anticipation of this closing. At Albany there is a good supply of Southern lumber. At Buffalo dealers are firmly holding on to their set prices for white pine. Farther west there is a liberal supply. Car builders have been quiet but heavy buyers. Yellow pine is strong because those who control the trade refuse to allow prices to weaken. They have been assured that the condition of supplies in the South available for Northern markets is such as to warrant them in keeping prices up. Nothing is to be gained by any other course. North Carolina pine is rather heavy, and a good deal of stock is being made at the mills. We have been offered more poplar than we can take, but the Western people do not cut prices. Ash is hard to move, and no one tries to sell it below regular market rates. Cherry is in moderate supply. Chestnut is dull. Maple is about done for the season, although the retailers expect to get rid of their stocks to buyers during the winter for flooring purposes. There will be no large transactions this fall unless the railroad people should decide to purchase. Our advices from the West are all of the right sort. The money lenders tell us financial affairs are brightening, and we trust they are. There is no unbalanced condition of the industries, and a good foundation, we think, has been laid for next year's business. With increased railroad building in the South we look for a larger and more varied supply of Southern lumber, and the market for it will certainly increase as fast as the supply.

Foundry and Machine Shops  
For Sale at New Decatur, Ala.

There will be sold at noon on the 8th day of December next, at public sale, to the highest bidder for cash, by the trustee under the mortgage on the property, the splendid plant known as the Ivens & Son Foundry and Machine Shops, at New Decatur, Ala., at the junction of the Louisville & Nashville and the Memphis & Charleston railroads, on the Tennessee river. The sale will include the extensive shops, built of stone, brick and iron; also all the machinery, tools and patterns therein contained; also the land occupied by said plant, fronting 405 feet on the right of way of the Louisville & Nashville Railroad, together with all the rights, franchises and privileges vested in the Ivens & Son Machine Company. This is one of the most complete and best equipped iron-working establishments in the country, all new and of the most improved character, with a switch track running into the building. Full description can be given by the Decatur Land, Improvement & Furnace Co., with whom liberal arrangements for purchase can be made on the day of sale.

**THOMAS J. SHRYOCK & CO.**  
**YELLOW PINE COMMISSION MERCHANTS.**  
Correspondence Solicited.  
**BALTIMORE AND WASHINGTON.**

**E. B. HUNTING & CO.**  
BALTIMORE, MD.  
JACKSONVILLE and FERNANDINA, FLA.  
and SAVANNAH, GA.

WHOLESALE MERCHANTS  
AND MANUFACTURERS OF  
**Yellow Pine Lumber**

Buy for cash on cars at Mills and sell delivered to all points reached by rail or water. Write Baltimore Office.

FOR THE BEST AND  
LOWEST PRICED  
**GANG LATH MILL**  
AND BOLTER COMBINED  
ADDRESS  
**B. S. ABBOTT OLEAN, N.Y.**  
Please mention this paper.

## ARE YOU TROUBLED

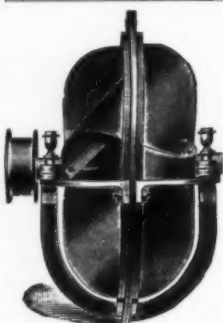
With odors in your kitchen, foul and impure air in your bath or living rooms? If so, examine the merits of

**EKSTROM'S VENTILATOR**

And Stove-Pipe, Collar, Thimble and Holder Combined.

**CHENEY & HEWLETT,**  
207 BROADWAY, NEW YORK.

Send for Circular. Agents Wanted.



Compound Ventilating Wheel  
Pat. January 25, 1887.

For MOVING AIR and everything that floats in air in large volume; small power required. It is NEW in principle, and is the best wheel made for circulating air in all places. Send for the new circular just out.

**NATIONAL VENTILATION CO.**  
68 Pearl St., Boston, Mass.

**OLNEY BROTHERS,**  
N. E. Agents for  
Binghamton Cylinder & Spindle  
AND DEALERS IN  
Sperm, Lard, German, **OILS**  
Spindle and Wool  
140 CONGRESS ST., BOSTON, MASS.

The "WILLIAMS," "DRAPER" & "SIPHON"  
STEEL AND BRASS  
**OILERS**  
THE BEST IN THE WORLD.

Sold by Dealers Everywhere. Send for catalogue.

**H. A. WILLIAMS MFG. CO.**  
22 Milk Street, Boston and 55 Fulton Street, New York.

**JOHNSON, SHRYOCK & CO.**  
**HARDWOOD COMMISSION MERCHANTS.**  
Correspondence Solicited.  
Office, - Shryock Building,  
BALTIMORE.

WANTED 100,000  
MORE FARMERS  
TO USE THE BEST  
AND MOST COMPLETE  
FANNING MILL  
IN THE WORLD  
LOW PRICES  
SHIPPED ON APPROVAL  
SEND FOR CATALOGUE TO  
J. H. FIELD

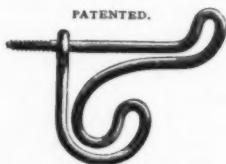


SEND FOR NEW PRICES

GEM WIRE

**Coat and Hat Hooks**

PATENTED.



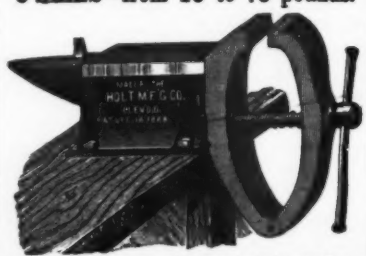
MANUFACTURED BY

**VAN WAGONER & WILLIAMS CO.**

82 Beekman St., New York.

Catalogue of Spring Hinges, Door Springs, Wire Coat and Hat Hooks, Blind Adjusters, &c., on application.

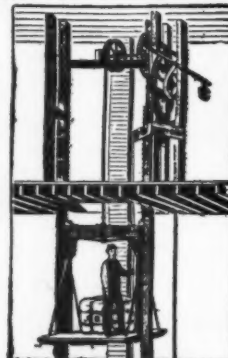
**COMBINED ANVIL AND VISE.**  
HARDENED FACE, STEEL JAWS.  
5 SIZES--from 10 to 75 pounds.



Anvil and Vise can be used independent of each other. Illustrated Catalogue to all applicants, but discount to Trade Only.  
**HOLT MANUFACTURING CO.**  
10th & 10th First Av., Cleveland, O

**Bates' Hand Elevators**  
Pat. April 18, 1871. Released July 25, 1876.

OVER 6,000 IN USE.



Adapted for Warehouses, Stores, Factories, Hotels, Public Institutions and every place where merchandise, &c. is transferred from one story to another.

**JAMES BATES,**  
PATENTEE,  
Nos. 1, 3 & 5 President Street, BALTIMORE.



**The Jeffrey Mfg. Co.**

121 W. State St., Columbus, O.

MANUFACTURERS OF  
DETACHABLE CHAIN BELTING  
DESIGNED FOR

**Elevators, +**

**+ Conveyers,**

**DRIVING BELTS**

For Handling Barrels, Boxes, Bales, Grain, Coal, Ores, &c.

Illustrated 1890 catalogue sent on Application.

Correspondence solicited.



**Joyce, Griddell & Co.**  
DAYTON, O.

MANUFACTURERS OF  
**J. O. Joyce's Pat. Lever Jacks**  
Compound Lever  
AND SCREW JACKS,  
And Bench Vices.  
50 varieties of Lever and Screw Jacks for railroad use.  
Please send for illustrated catalogue.

**COTTON SEED OIL MILLS.**  
From 5 to 50 tons daily capacity.

THESE MILLS HAVE ALL THE MODERN IMPROVEMENTS AND PRODUCE THE MOST SATISFACTORY OILS. SEND FOR PARTICULARS.  
ADDRESS **H.W. HUBBARD, ATLANTA GA.**  
JACKS FOR RAILROAD USE.

**Labor-Saving Machinery.****THE BAXTER ELECTRIC MOTOR**

Is the BEST MOTOR in the Market for running Printing Presses, Sewing Machines and the Machinery used by Shoe Manufacturers, Clothiers and by all others requiring Motive Force from one to ten horse-power in their work.

**ALL MECHANICAL CONTRIVANCES,**  
ELECTRICAL OR OTHERWISE,  
for Saving Labor and Fuel, manufactured to order, and

**REPAIRS MADE ON ALL KINDS OF DYNAMO,**  
Street Car and Stationary Motors

**Baxter Electric Motor Co.**  
Chase, Biddle, Chester and Collington Ave.,  
**BALTIMORE, MD.**

**RICHMOND IRON PAINT CO.**

WEATHERPROOF, WATERPROOF AND FIREPROOF.



We have been using your "Richmond Iron Cement" to repair leaks in our Merchandise Piers at Newport News, and the result has been very satisfactory. There is no complaint of leaks where it has been used.—F. L. CABELL, Engineer of Maint. of Way, Peninsular, Richmond & James River Div. C. & O. R. R.

**N T PATE & CO, 1007 E Cary St., Richmond, Va.**  
Gen. Agency "Vulcan Fire-Proof and Bolter's" Paints.

**PURE WATER FROM IRON RUSTLESS PIPES**

The best for conveying water.

MADE BY THE  
**WELLS RUSTLESS IRON**  
52 JOHN STREET,  
NEW YORK CITY.

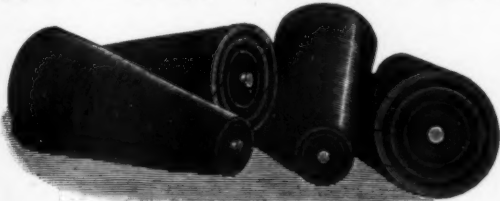
Buy and Sell SECOND HAND Stave, Hoisting Shingle and Ice Machinery and Hoisting Engines for OASH Address Box 110, Cleveland, O.



### Why Western Towns Have Grown So Rapidly.

Mr. James Moore is the chairman of the Galveston advertising committee. He has submitted a report to the citizens of Galveston in which he discusses the question of the advisability of advertising, and what he says about Galveston in this respect applies with equal truth to all other Southern towns and cities. He says: "After two months of diligent inquiry and investigation your committee on advertising is prepared to report to you that we find that the marvelous growth of Western cities is directly attributable to the judicious and liberal advertising of their respective advantages for business and places of residence. Notable instances of what advertising will do for a city is to cite to you the phenomenal increase of population and business of Denver, Kansas City, Omaha, Los Angeles, Portland, Seattle and Tacoma, and even Chicago and St. Louis might be included. They are all placing before the public their respective advantages by means of a liberal use of printer's ink, the result of which you all know. The West and Northwest have grown in population in the last decade out of all proportion to the balance of the United States, due mainly to careful and liberal advertising.

It is the deliberate opinion of this committee that if a liberal amount of money be judiciously expended in putting Galveston's great commercial, manufacturing, health, pleasure and residence advantages fairly before the public, it will result in a far her advance of at least 50 per cent., add largely to our population and greatly pro-



MENASHA BEVEL CONE PULLEYS

note our commercial and manufacturing interests.

Cities' advantages must be advertised with the same broad spirit of liberality that you exercise in conducting your own business. Every merchant, broker, lawyer, doctor, contractor, capitalist, tailor, barber, liverman, restaurant or hotel proprietor, real estate owner, dealer or agent, and, in fact, every citizen should and can afford to contribute to the advertising fund, which should not be regarded as a donation, but as an investment which will return to each contributor many hundreds per cent. inside of a few months. The individual enterprise in the way of advertising Galveston has already begun to be felt, and strangers are arriving daily, some for recreation, but more for investment. If individuals can do even a little good, then how infinitely greater good can we accomplish from co-operation?

While Galveston, Texas, and the greater West back of us have just cause to congratulate themselves upon the liberal appropriations made by Congress for a deeper harbor on this coast, we feel that the beginning has only been made: that richer results are to follow if we properly advertise our advantages. We ask you to meet our solicitors in a spirit of liberality and fairness, with an eye single to the almost immediate great returns which you will each receive for the money invested with us in advertising Galveston's advantages."

T. C. ALCOTT & SON, Mount Holly, N. J., report a large number of recent sales of Alcott's turbine water wheel. In the list are noted many Southern orders, evidencing the increasing favor with which the trade of that section look upon this wheel. Among the Southern purchasers are Nauce & Smith, Greensboro, N. C.; Luling Water Works, Luling, Texas; J. T. Crum & Son, Sandyville, W. Va.; North American Construction Co., Buchanan, Va. (1 48-inch wheel in case and necessary machinery for electric-light plant); S. L. Williams, Home, Tenn., and J. M. Means & Co., Grafton, W. Va.

CONTRACTS for ice machinery recently closed by the Sulzer-Vogt Machine Co., of Louisville, Ky., includes a second order from the Indiana Brewing Co., of New Albany, Ind.; Paul Reising & Co., of the same place, order for ice machine, and Henry Conrad, a 15-ton refrigerating plant and ice machine combined. The firm is working full time getting out ice machines for next season, and are in excellent shape to furnish any capacity machine at reasonable notice. The company also makes a specialty of hydraulic, steam and hand elevators, and is supplying three of the largest breweries in Louisville with improved power elevators. It is now erecting a complete boiler plant to have ample facilities and the most improved machinery for constructing superior work promptly.

FOR the third time within a period of seven years the rapid and continued growth of the business of the Sebastian-May Co. necessitated the building of larger works. The company selected Sidney, Ohio, at which place have been built commodious brick and stone structures especially adapted to its business, and equipped with the best and latest machines, tools and appliances obtainable for the rapid and economical production of the company's specialty, viz., "lathes." The company's present address is Cincinnati, Ohio, but after December 1, Sidney, Ohio.

### Bevel Cone Pulleys.

A cut of some of the cone pulleys made by the Menasha Wood Split Pulley Co., of Menasha, Wis., is given on this page. This company manufactures a great variety of wood split pulleys, among which are hard maple bevel cone pulleys, maple step cone pulleys and hickory bent rim step

cone pulleys. They are of a handsome and neat design, constructed in a strong and durable manner to withstand a great amount of wear, and are giving satisfaction on many kinds of machinery. The term split cones is applied because they can be opened up and put on the shaft at any point without cutting key-seats or taking down the shaft. This feature is one that will recommend this style of pulley to many users, and the statement is made that cones would be more widely used as means of increasing or reducing speed if it was more generally known that any size or kind could be had at the same price as other pulleys. Additional particulars can be secured by addressing the manufacturers.

### F. H. DAVIS & CO.

Dealers in New and Second-Hand

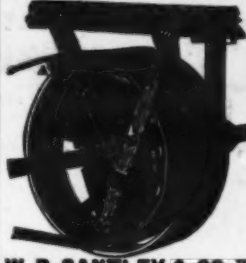
### Paper Mill Machinery

No. 101 Milk Street, Boston.

THE BEST PULLEY ON EARTH.  
AGENTS WANTED  
OHIO PULLEY & MACHINE CO.  
WARREN, OHIO

Established 1872.  
M. L. EDWARDS MFG. CO.  
SALEM, OHIO  
Makers of Blacksmiths' and Carriage Makers' Tool, Butcher's Supplies, &c.  
CATALOGUE FREE.

### The WELLINGTON BELT HOLDER.



LATELY IMPROVED.  
Just the thing to shift large belts driving Dynamos, Blowers, Gigs, Saws, &c. Belt stops and slackens when machine stops. Thousands in use, cost very low. Sent on trial. Permit us to quote you prices.

W. R. SANTLEY & CO. Wellington, Ohio

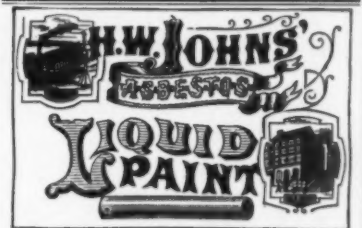
### CORTRIGHT



### METAL ROOFING, TILES & SLATES



Storm-Proof, Fire-Proof, Durable, Handsome.  
Illustrated Catalogue Free.  
CORTRIGHT METAL ROOFING CO., Phila.  
Western Office, 720 Delaware St., Kansas City, Mo.



ARE the STANDARD PAINTS FOR STRUCTURAL PURPOSES, and are composed of pure linseed oil and the highest grade of pigments. They are prepared ready for use, in newest shades and standard colors, and, on account of their purity and great covering properties, they are the MOST DURABLE and ECONOMICAL Paints ever produced. One gallon will cover from 250 to 275 square feet, two coats.

Samples and Descriptive Price List free by mail.  
H. W. JOHNS MANUFACTURING COMPANY.

SOLE MANUFACTURERS OF  
H. W. Johns' Asbestos Roofing, Fire-Proof Paints, Building Felt, Steam Pipe and Boiler Coverings, Asbestos Steam Packings, Gaskets, etc. Vulcabeston Moulded Rings, Washers, etc.  
87 MAIDEN LANE, NEW YORK.

### THE ACME

ARCHED STEEL

### Eave Trough Hanger.

PATENT PENDING



GUARANTEED THE STRONGEST AND BEST IN THE MARKET.

### THE STANDARD Eave Trough Hanger

PATENTED

MADE OF BEST GALVANIZED STEEL WIRE.

CHEAP, STRONG, AND DURABLE.

### THE CANTON STEEL ROOFING CO.

CANTON, OHIO.

SOLE OWNERS AND MANUFACTURERS.

### Power Punches AND Shears Combined.

Double Power Punch Double Power Shears.

G. D. COLTON & CO. GALESBURG, ILL.

Established 1867.

### E. HARRINGTON, SON & CO.

Works and Office,

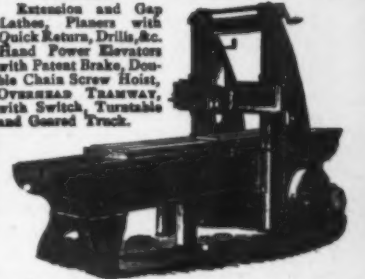
W. 15th St. & Penna. Ave., Phila., Pa., U.S.A.

Manufacturers of a full line of

### Iron Working Machinery.

INCLUDING

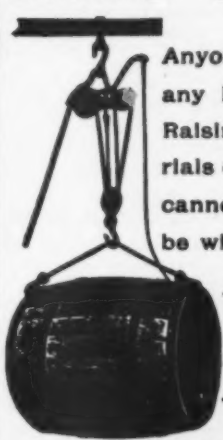
Extension and Gap Lathes, Planers with Quick Return, Drills, &c. Hand Power Elevators with Patent Brake, Double Chain Screw Hoist, OVERHEAD TRAMWAY, with Switch, Turntable and Gearing Truck.



Gear Cutting a Specialty. Send for estimates.

Represented by J. O. MAYNARD, 25 Cortland St., N. Y. C. E. KIMBALL, 93 Oliver St., Boston. W. BUCHNER, 100 Main St., Cincinnati.

### The Spragg Automatic BRAKE HOIST



Anyone that has any Hoisting or Raising of Materials of any kind cannot afford to be without it.

Send for Illustrated Circular

Sole Philadelphia Agents:

### PALMER, CUNNINGHAM & CO.

LIMITED.

607 Market Street. PHILADELPHIA.

### OW.-OW. OW!

What's the Matter?

I Hurt my Hand with a Nail Puller.

Why did'nt you buy

### SCRANTON'S

IMPROVED

### Nail Puller

Which Can't Hurt the Hand?

MADE BY

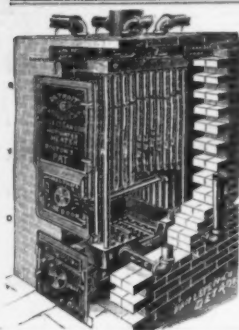
### The Belden Mch. Co.

NEW HAVEN,

CONN.

S. A. HAINES CO. 80 Chambers St. New York.

SELLING AGENTS.



**BEST RECORD FOR THE LONGEST TIME IN THE COLDEST CLIMATES.**

**BOLTON  
HOT WATER  
HEATER.**

Can Not Leak, having no bolted, packed or flanged joints.  
Can Not Crack, being made of Wrought Iron.  
Best Fire Surface, all directly exposed to the fire. Best proportion to grate surface.  
Drop Tubes. No other known device gives such extensive heating surface, combined into vertical circulation.

BRICK CASING PREVENTS LOSS OF HEAT IN CELLAR.

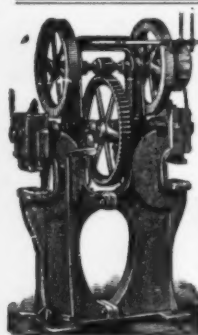
**DETROIT HEATING & LIGHTING CO.**

88 Lake Street, CHICAGO, 359 Wight Street, DETROIT, 42 Pearl Street, BOSTON.  
508 North Fourth Street, ST. LOUIS, DALLAS, TEX.



**COMBINATION GAS MACHINE.**

Best Independent Lighting Apparatus for Country and Suburban Residences, Churches, Schools, Stores, Hotels, etc. Over 20 years in use with never an accident. Average cost of gas 1/2 cent per hour per burner.



**THE  
Long & Allstatter Co.**  
HAMILTON, OHIO.

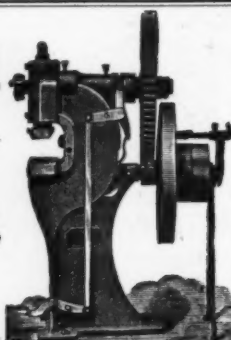
Double, Single, Angle-Bar, Gang, Horizontal, Twin, Boiler, Spacing, Gate, Multiple, BELT and STEAM-DRIVEN

**Punches and Shears,**

Over 300 Sizes.

ALSO

**POWER CUSHIONED  
HAMMER.**



Small Double Machine.

Send for New Catalogues.

Small Single Machine.

## Laundry Machinery.

LARGEST STOCK. LATEST IMPROVEMENTS. FULLEST LINE.

Washing Machines,  
Ironing Machines,  
Centrifugal Machines,  
Mangles, Wringers, &c.  
BOILERS AND ENGINES.

OUTFITS FOR  
Hotels and Public Institutions.

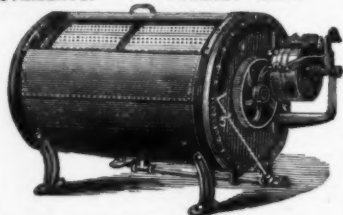
A SPECIALTY.

**THE A. M. DOLPH CO.**

222 WASHINGTON STREET,  
CHICAGO, ILL.

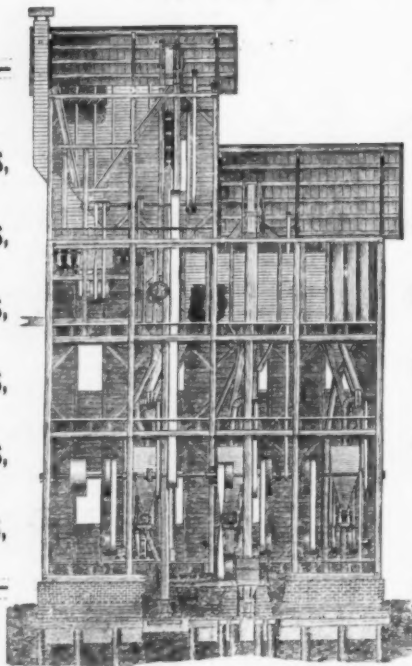
40 CORTLANDT STREET,  
NEW YORK.

COR. 9TH ST. & FREEMAN AVE.  
CINCINNATI, O.



## Acid Phosphate Works,

FRISBEE-LUCOP  
PULVERIZERS,  
CRUSHERS,  
MIXERS,  
SACKING and  
MIXING MACHINES,  
AUTOMATIC  
DUMP CARS,  
ELEVATORS,  
CONVEYORS,  
ACID EGGS,  
AIR COMPRESSORS,



Lead and Antimony,  
Valves and Seats,  
SULPHUR,  
FURNACES,  
BOILERS,  
ENGINES,  
HEATERS,  
SHAFTING,  
PULLEYS,  
HANGERS,  
&c., &c.

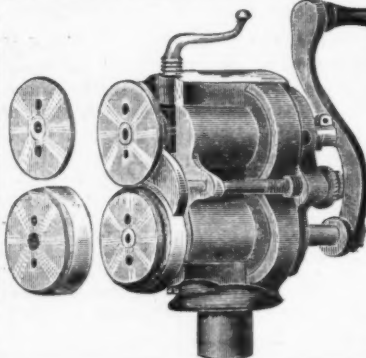
We are prepared to furnish estimates for Machinery for Complete Works, including Drawings for Mill Building, Storehouse, Engine and Boiler House, &c.

• ALSO PLANS FOR ERECTION OF MACHINERY. •

We refer to the following Fertilizer Works using our machinery, viz: Imperial Fertilizer Co., Charleston, S. C.; Wando Phos. Co., Charleston, S. C.; Atlantic Phos. Co., Charleston, S. C.; Edisto Phos. Co., Charleston, S. C.; Ashpoo Phos. Co., Charleston, S. C.; St. Andrews Phos. Co., Charleston, S. C.; Mead & Co., Charleston, S. C.; Berkeley Phos. Co., Charleston, S. C.; Stono Phos. Co., Charleston, S. C.; Rome Chemical Co., Rome, Ga.; Montgomery Fert. Co., Montgomery, Ala.; South Chemical Co., Meridian, Miss.; Nat. Acid Co., New Orleans, La.; Troy Fert. Co., Troy, Ala.; Davie & Whittle, Petersburg, Va.; G. W. Scott Mfg. Co., Atlanta, Ga.; Hammond, Hull & Co., Savannah, Ga.; and Port Royal, S. C.; Baldwin Fert. Co., Port Royal, S. C.

**Valk & Murdoch Iron Works, Charleston, S. C.**

## NIAGARA STAMPING & TOOL CO.



**Tinners' Machines & Tools**

Squaring Shears, Press Dies,  
FOR WORKING SHEET METAL  
Fruit Can Dies and Tools.

**CANNERS' OUTFITS.**

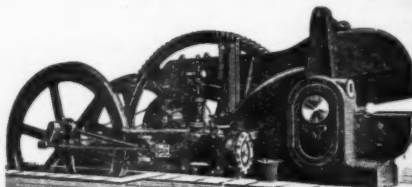
OFFICE AND WORKS:

Cor. Randall & Superior Sts., Buffalo, N. Y.

Write for Catalogue and Price-List and mention this paper.

## The LLOYD BOOTH CO., Youngstown, Ohio.

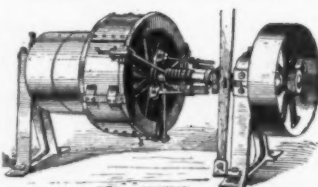
GUIDE,  
BAR,  
MUCK,  
SHEET  
AND PLATE  
MILLS.



SQUEEZERS,  
SHEARS,  
ORE MILL,  
ROLL LATHES,  
SAND AND  
CHILL ROLLERS.

## Manufacturers of IRON AND STEEL WORKS MACHINERY.

## PERFECTLY UNIFORM SPEED



For Dynamos and all classes of Machinery, driven by Water-Wheels, Slow-Speed Engines, or from any General Source of Power that is doing other work.

**OUR INTERMEDIATE SPEED REGULATING**

Maintains a Perfectly Uniform Speed, no matter how variable the driving power may be. The speed can be changed at any moment by moving a shipper over a range of 30 per cent. Write for descriptive pamphlet.

**T. M. FOOTE REGULATOR CO.**

273 Franklin Street,

BOSTON, MASS.

ESTABLISHED 1832 ON PRESENT PREMISES.

The Best  
—IS—  
ALWAYS  
—THE—  
Cheapest.



Therefore  
BUY OUR  
COLOPHINE  
—OR—  
Perfect Oil

The above are our specialties in MACHINERY OILS, and are the best oil in the price manufactured. We can give you anything in the OIL LINE, any grade at the very lowest prices. Correspondence solicited.

**WM. C. ROBINSON & SON,  
MANUFACTURERS AND DEALERS IN OILS.**

217 South Street, Baltimore, Md.





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XUM



[FOR "CLASSIFIED INDEX," SEE PAGE 2.]

XUM

STODDARD, LOVERING & CO., 152 Congress Street, Boston, Mass., Sole Agents for DOBSON & BARLOW'S COTTON MACHINERY.

**HAVE YOU USED**  
ANY OF OUR  
**DOBBIES** FOR  
Weaving Fancy Goods.  
THEY ARE BEST MACHINES IN EXISTENCE.

Let us put in a sample machine. We have no fear of the result. Address us for prices and description.

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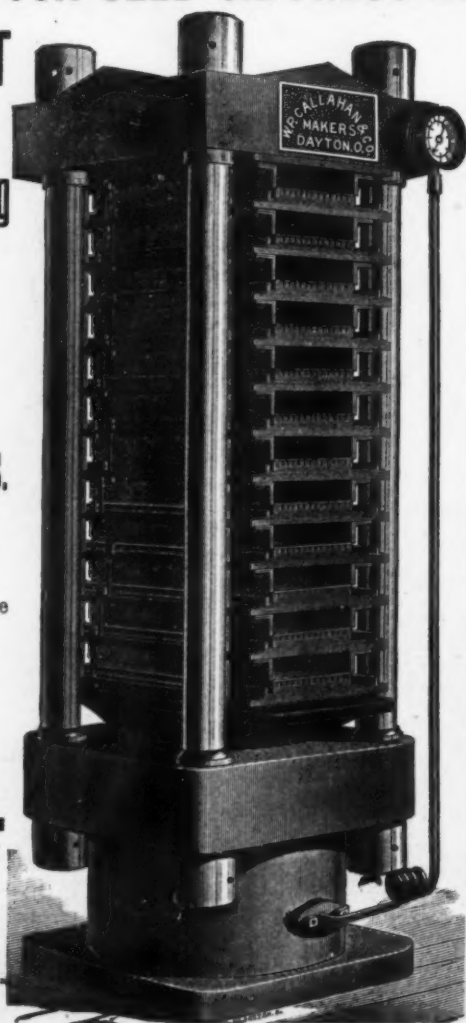
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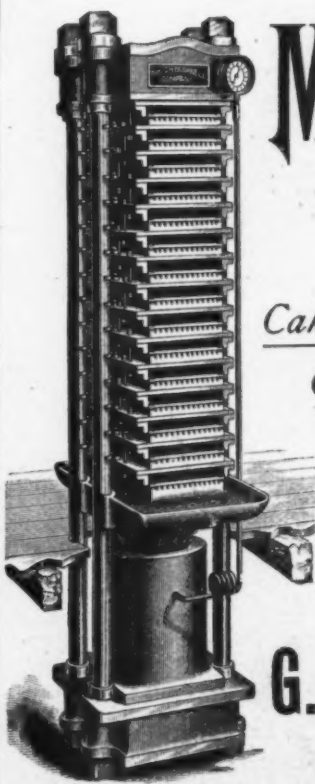
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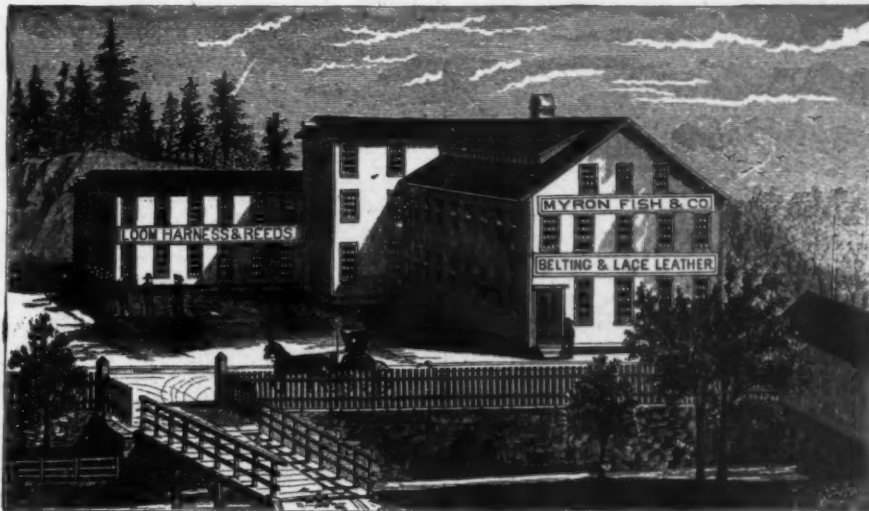
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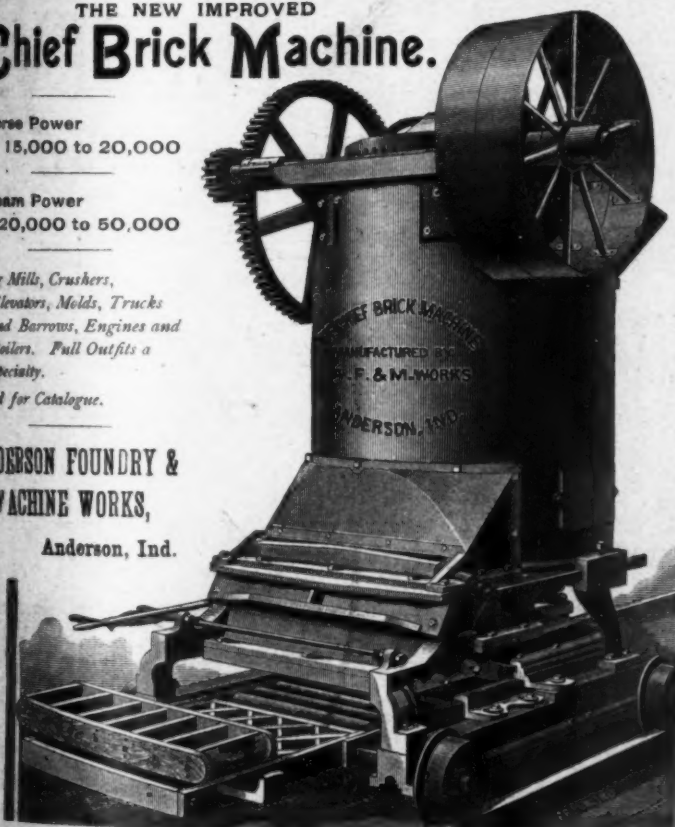
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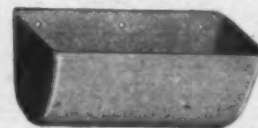
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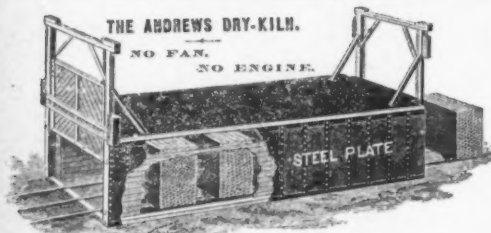
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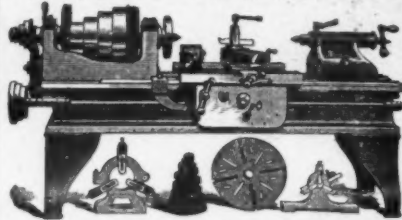
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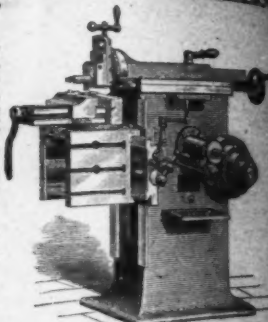
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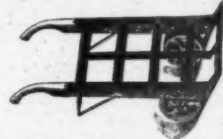
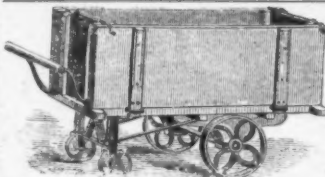
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